VOL. 85 NO. 8

The Purchasing Agent
How Does He Buy?
(Page 29)

textile bulletin

AUGUST • 1959

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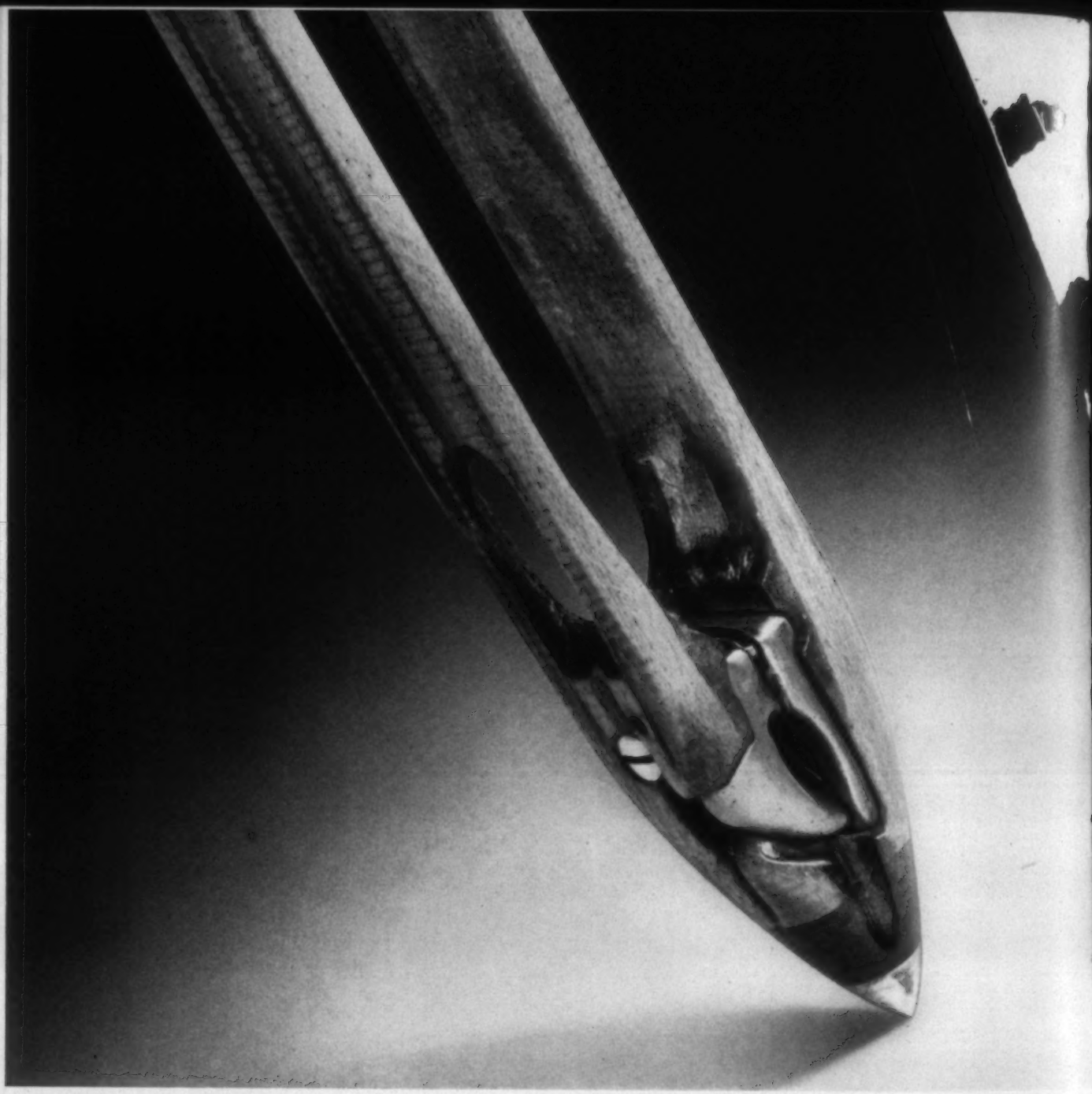

266,000 Miles... a recent performance record achieved by a Draper Tru-Mold Shuttle. This shuttle was in continuous operation for over 20,800 hours and was still in running condition when removed from the loom. While these figures are impressive, they are even more amazing if we consider the number of times the shuttle was boxed and thrown. A quality shuttle coupled with proper care and handling make records of this type possible. For shuttles that last longer ... give better performance... use Draper Tru-Mold Shuttles.

DRAPER CORPORATION

HOPEDALE, MASS. • ATLANTA, GA. • GREENSBORO, N. C. • SPARTANBURG, S. C.

THE NEED: Special lacquers to resist coning oils

A Sonoco customer wound a quantity of yarn on lacquer-tipped cones and then stored the finished packages. During the months of storage the coning oil attacked the lacquer tip causing the lacquer to bleed on the yarn. Additionally, the cone wrap stuck to the lacquer and pieces of paper were left on the tip when the wrap was removed. These conditions caused the yarn to snag and break during the take-off.

Sonoco research chemists, because of past experience with similar problems, promptly developed a new type lacquer which will prevent a reoccurrence of this problem when the same oil is used.

Developments of this nature are "all in a day's work" at the Sonoco research laboratory. If you have similar problems, consult your Sonoco representative.

Only Sonoco, with its completely integrated manufacturing facilities and its research and development departments, is in a position to render this vital service to the textile industry. You can depend on Sonoco's 60 years' experience and leadership.

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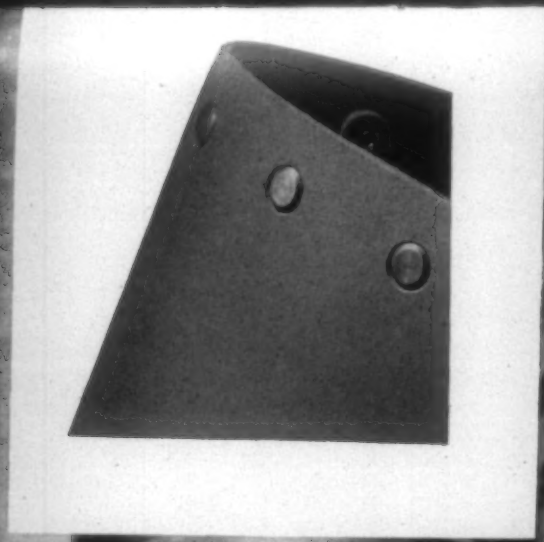


Along with a 30% increase in yarn uniformity

Dayco Rub Aprons

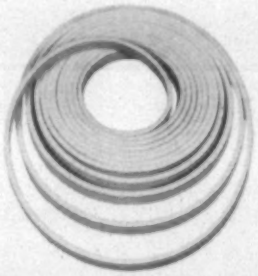
Give you more yarn per card

DOWNTIME'S UNNECESSARY when you use Dayco Rub Aprons. Now you can strip your cards faster . . . because Dayco Rub Aprons require no oiling . . . and save up to $25 an hour. Trouble-free Dayco Rub Aprons practically do away with even routine maintenance . . . which means they virtually pay for themselves in added production.

TOUGH, 2-PLY Dayco Rub Aprons are doubly reinforced with longer wearing, rubber-impregnated fabric. This extra strength construction gives the apron greater flexing stamina and reduces eccentric motion by 33%! Buttons can't help but stay fixed in an apron body as tough as the Dayco 2-ply.

YARN QUALITY IMPROVES as much as 30% because the texture of Dayco Rub Aprons never varies! Having the highest co-efficient of friction available, Dayco Rub Aprons never slick or glaze, are immune to changes in temperature and humidity, and are unaffected by emulsion oils which cause surface growth in other aprons.

NO NEED TO ADJUST trouble-free Dayco Rub Aprons. Perfectly concentric, they hug the rolls tightly for accurate tracking and assure positive, non-slip drive at all times. Longer wearing, they have an extra-deep synthetic surface with built-in resistance to the abrasion that results from constant rubbing.



DAYCO ENDLESS CONDENSER TAPE

Features offering additional savings . . . greater card efficiency:

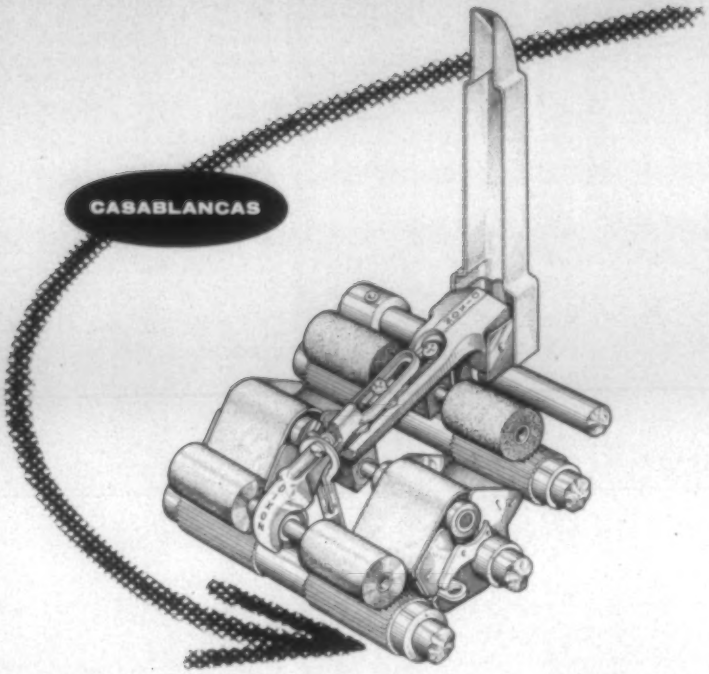
- No stretch—little need for take-ups
- Less tendency to twist or turn over
- Easy to clean—require less attention
- Unaffected by oil or static
- Will not crack, economical efficient

Get the facts. Ask about actual cost-savings with Dayco Rub Aprons the next time the Dayco representative calls. Or write the Dayton Rubber Co., Textile Div., 401 S. C. National Bank Building, Greenville, S. C.

Dayton Rubber

Dayco and Thorobred Textile Products for Better Spinning and Weaving

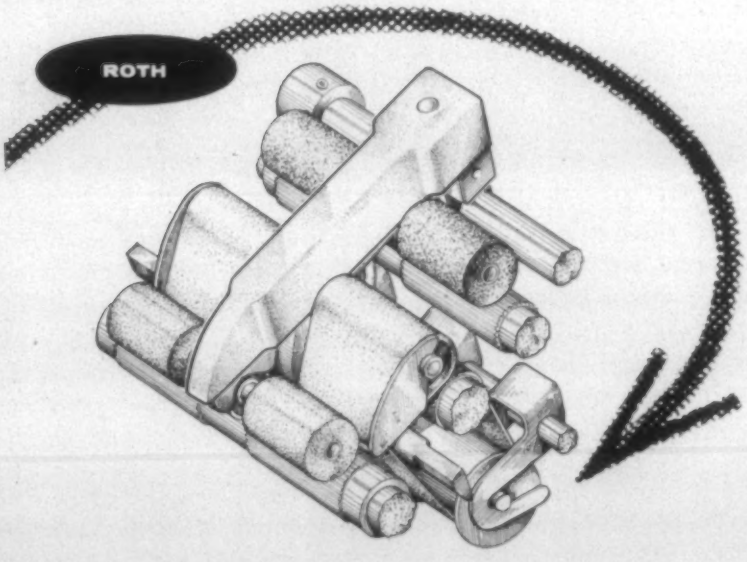
OVERSEAS PLANT, THE DAYTON RUBBER CO. LTD., DUNDEE, SCOTLAND



Only From Dixon!

ENGINEERED CHANGEOVER PLANS

for Both Spinning Systems



Dixon's multi-step changeovers for *both* Casablancas and Roth spinning systems are the product of over eighty years of specialized service to the textile industry. More than 2,000,000 spindles in leading mills* throughout the country attest to the dependability and high performance of Dixon-designed equipment.

If your spinning is outdated, a Dixon Engineered Changeover Plan is the most economical way to regain your competitive position in the industry. Dixon's broad product line and intimate knowledge of spinning technology make it possible for our engineers to recommend the system which will provide fastest pay-back in your mill . . . in terms of reduced cleaning, elimination of lubrication, fewer ends down, longer drafts, and better yarn uniformity. Furthermore, each Dixon Engineered Changeover Plan — whether Roth or Casablancas — can be installed in one or multiple low-cost steps. Mill profits improve RIGHT FROM THE FIRST STEP! When complete, the Dixon Plan provides the latest word in spinning efficiency:

- Middle and back rolls run on RULON® . . . the oil-free bearing that never is lubricated . . . outwears nylon 12 times.
- The Dixon patented self-aligning front roll rides on a hardened and ground, pre-lubed, sealed, precision ball bearing which is guaranteed for years and years and never requires lubrication.
- All parts are maintenance free. Pay-back on your investment is a matter of months.
- Productivity and quality improve. Yarn is cleaner . . . seconds decrease.

Want proof of performance? Ask our customers . . . also send for actual cost analysis of typical Dixon Changeover Plan which paid for itself in twenty-five months and is now saving $1.50 per spindle per year.

Dixon Corporation, Bristol, Rhode Island.
Southern Sales: Dunson & New, Inc., Box 9202 Greensboro, N. C.; Box 321 Greenville, S. C.; Box 445 West Point, Ga.

*To mention a few.

Mill	Spindles	System
Clifton Mfg. Co.	71,918	Double Apron Roth & Casablancas
Monroe Cotton Mills	18,756	Double Apron Casablancas
Columbus Mfg. Co.	17,000	Double Apron Roth
Crown Cotton Mills	15,232	Double Apron Roth & Casablancas
Deering Milliken	121,500	Double Apron Roth

Dixon

Engineered devices for weighting and guiding top rolls since 1876

for permanent mothproofing

Wool yarn, blankets, rugs, suitings treated with Hartocide are protected against the damaging effects of moths and carpet beetle larva for the *life of the garment.*

The protection, achieved *at very low cost,* is applied directly in the dye bath, and remains through laundering, dry cleaning and all normal use conditions.

Wool articles properly treated with Hartocide exceed ASTM requirements for permanent mothproofing.

Write for an appointment with our Technical Director for a trial run and prove to yourself how economically you can add the *plus* of permanent mothproofing to your goods.

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#4 in a series reviewing the "reasons-why" for the consumer acceptance of Arnel

ARNEL'S "STAMPS" OF CONSUMER APPROVAL

Answers to the questions, "Why?", "What made it work?", or even "How come?" are essential ingredients in the telling of any success story.

Arnel is a success story. This triacetate fiber is known in the industry for its processing and styling flexibility—its economic advantages.

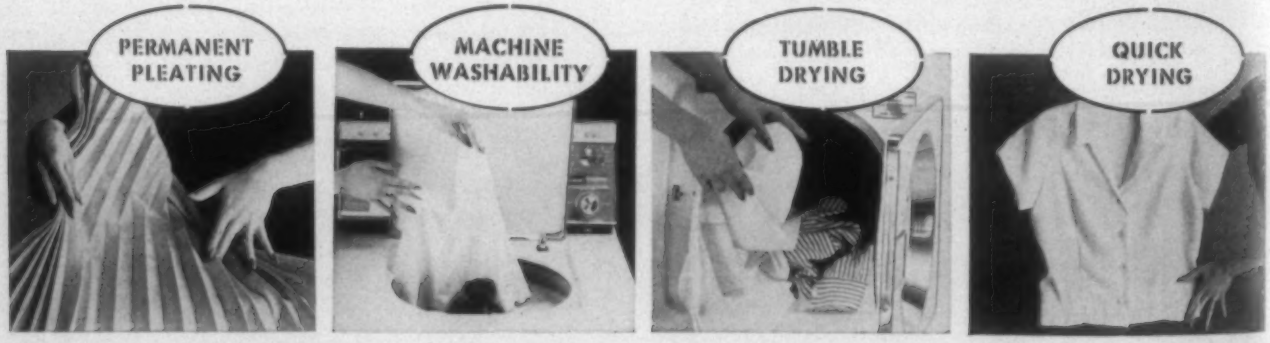
But there's still another side to this success story. The consumer's. Their "stamps" of approval give real meaning to the Arnel story. For instance, consider WRINKLE RESISTANCE.

1. While Arnel fabrics are initially attractive to the consumer for beauty and styling, it's the ease-of-care characteristics such as wrinkle resistance that complete the sale.
2. Properly constructed fabrics made of Arnel are extremely resistant to wrinkling and mussing, even under conditions of highest humidity.
3. This high resistance is due to the fiber's intrinsic properties, including low moisture retention (absorbing only 3.2% moisture under normal conditions) and excellent resilience.
4. This resistance is *not* at the expense of other characteristics. Fabrics of Arnel have a desirable hand plus eye-appealing beauty and drapability.
5. Fabrics carrying the official Arnel symbol have been pre-tested for performance claimed—including wrinkle resistance. (Tests are conducted free of charge by the Celanese Corporation of America.)

So take advantage of the great consumer acceptance of Arnel. Let Celanese work with you to develop new Arnel fabrics. Booklets 12A, 13A and 14A, containing the important technical procedure and facts about Arnel, are available by writing Celanese Corporation of America, Box 1414, Charlotte, N. C.

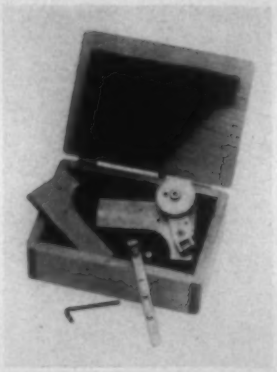
Celanese® Arnel®

District Sales Offices: 180 Madison Ave., New York 16, N. Y.; Room 10-141 Merchandise Mart, Chicago 54, Ill.; Western Merchandise Mart, Room 478, San Francisco, Calif.; P. O. Box 1414, Charlotte 1, N. C.; 200 Boylston St., Chestnut Hill 67, Mass.; 3179 Maple Drive N. E., Atlanta 5, Ga.
Export Sales: Amcel Co., Inc., and Pan Amcel Co., Inc., 180 Madison Ave., New York 16, N. Y.
In Canada: Chemcell Fibres Limited, 1600 Dorchester Street West, Montreal, Quebec



Arnel . . . a

ANNOUNCING OUR NEW PRECISION JEWEL BOX

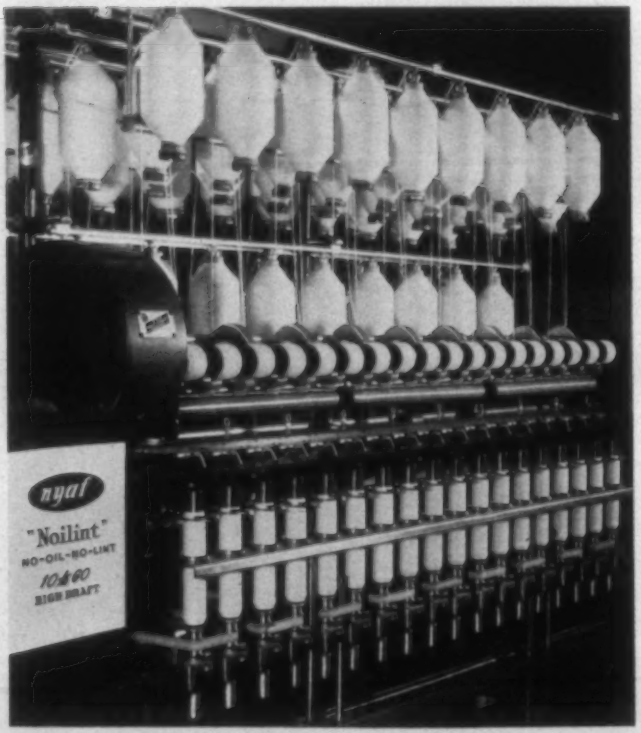


THE ANSWER TO A MILL MAN'S PRAYER

OUR NEW EQUIPMENT FOR ALIGNING STANDS: FOR MAINTENANCE OF PRECISION MACHINERY. FITS ANY TYPE FRAME WITHOUT DISMANTLING: WITHOUT CUTTING THE ENDS DOWN. WILL ALIGN STANDS TO WITHIN .002" SPEEDILY. EXPERIENCE HAS SHOWN THAT THIS NEW DESIGN TAKES LESS THAN ONE HOUR TO ALIGN STANDS ON THE AVERAGE SPINNING FRAME. AVAILABLE NOW.

PRECISION WORKMANSHIP . . . . . QUALITY PRODUCTION

INSTALL FULL ANTI-FRICTION HIGH DRAFT SPINNING. NYAF "39" IS SUPERLATIVE.



THE NYAF "39"

- Air Flow Creel with ball bearing bobbin holders.
- Full Anti-Friction case-hardened gearing, inside and out.
- Positive weighted, Positive center-suspended *Saddle hinged from heavy duty ¾" diameter cap bar rods.
- Positive positioned anti-friction top rolls with proven Fafnir bearings.
- Rugger stands. Fully adjustable. Designed to stay clean.
- Precision, Induction-hardened bottom fluted and knurled rolls. Full anti-friction. Tolerances .002 maximum run-out. Guaranteed diameters, .0015.
- High control Cradle design with pin* for positive close adjustments.
- Positive weighting.
- Pressed steel or aluminum Ring Rails.
- Flip-back Node control Rings.
- Full anti-friction oil-less Spindles.
- Full anti-friction Iders and Cylinders.

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FLUTED ROLLS FOR SPINNING • FLYER FRAMES • COMBERS • DRAWING & LAP MACHINES • NYAF

Amco Heliclone Loom Cleaner in Cannon Mills, Kannapolis, N. C.

High quality and efficient production

Amco Heliclone® Loom Cleaners help Cannon Mills to maintain these high standards!

At Cannon Mills, Kannapolis, N. C., automatic, continuous cleaning with Heliclone Loom Cleaners helps Cannon to maintain its famous quality — and to meet production schedules. Room appearance is also improved, and employee morale kept high.

Heliclones are designed to help you cut down on the old-fashioned blow pipe and manual method of cleaning. They serve to eliminate end runs and floats, waste bunches, end breakage, overshots, broken picks, and oil spots caused by loose accumulated waste.

Behind the development of the Heliclone is more than 70 years' experience working with textile mills. Amco can help you with your winder and card room cleaning problems, too! Get the facts.

Rotating nozzles driven by air streams form overlapping circular paths. Results: high velocity bursts of air over loom and warp surfaces for best cleaning. Supplementary outlets clean track and ceiling.

Cleveland-Rowan Plant of American Moistening Company. This modern plant is located at Cleveland, N. C. for the fabrication of duct work and sheet metal products.

AMCO

Since 1888

AIR CONDITIONING EQUIPMENT

Amesican Moistening Company, Cleveland, N. C. • Branches: Atlanta, Ga. • Providence, R. I. • Toronto, Canada

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you can hear it grow...

CLINTON
can do it
with Corn

The uses for Clinton products are growing, too!

Any midwestern farmer will tell you that you can hear corn grow on a hot summer evening. Sounds unbelievable doesn't it? But—even more amazing is the number of good things that require corn in their manufacture.

Clinton is *the* source for the products from corn that you need in *your* business. Clinton research is constantly discovering means by which we can better serve you. Clinton products are produced under the strictest system of quality control.

Clinton serves the TEXTILE industry

Clinton's uniformly controlled, quality products will meet your textile manufacturing requirements. Consult your Clinton salesman. He will provide product information, arrange for prompt technical service, or assist you in any way possible.

CLINTON CORN PROCESSING COMPANY
CLINTON, IOWA

CORN SYRUPS • DEXTROSE
STARCHES • DEXTRINS • SUGARS • OILS
LACTIC ACID AND OTHER PRODUCTS FROM CORN

If you can do it with Corn
you can do it better
with CLINTON

For mills with a future!...the frame of the future

the New WHITIN

PIEDMONT

SPINNING FRAME

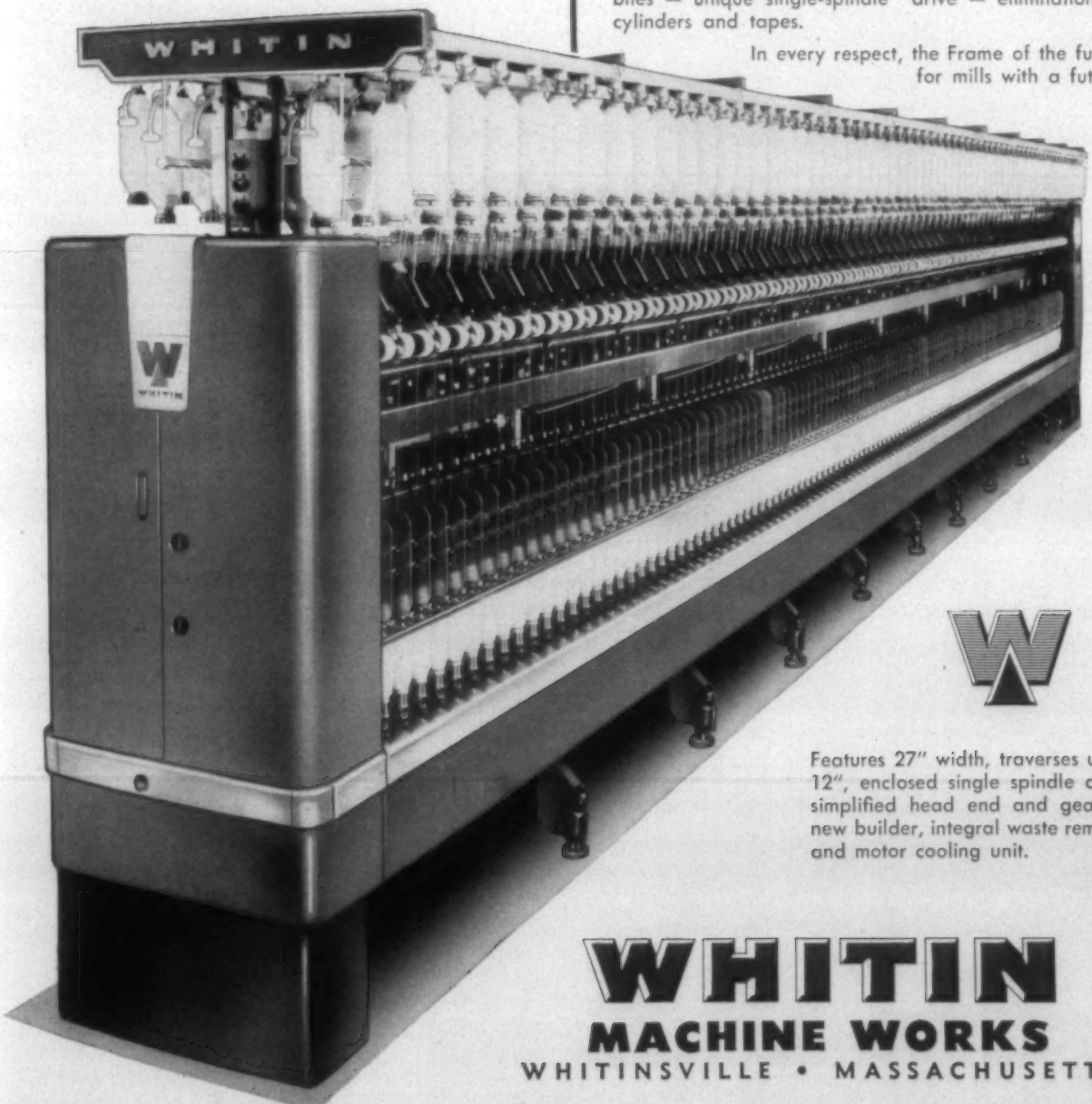
IN the new PIEDMONT, Whitin offers you a Spinning Frame which is not only smart in appearance, not only advanced in design — but which is also foremost in economy of operation. There are PIEDMONT benefits in every phase of your spinning operation.

PRODUCTION: Increases in front roll speed of 25 to 30% more than *average* production — and up to 15% more than *top current* levels.

PERFORMANCE: Simple construction with "built-in" efficiencies — straight line spinning plus SUPER-DRAFT for quality yarn — large "control-wound" packages for reduced spooling costs.

MAINTENANCE: Lowest cleaning costs possible thru streamlining — open construction — ball bearing assemblies — unique single-spindle drive — elimination of cylinders and tapes.

In every respect, the Frame of the future for mills with a future!



Features 27" width, traverses up to 12", enclosed single spindle drive, simplified head end and gearing, new builder, integral waste removal and motor cooling unit.

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MACHINE WORKS
WHITINSVILLE • MASSACHUSETTS

CHARLOTTE, N. C. • GREENSBORO, N. C. • ATLANTA, GA. • SPARTANBURG, S. C. • DEXTER, ME.

The Cocker Multiple Beam Tricot Warper

Head Diameters up to 32″

Versatile

2 – 21 inch beams
1 – 42 inch beam
1 – 55 inch beam
1 – 50 inch Raschel beam

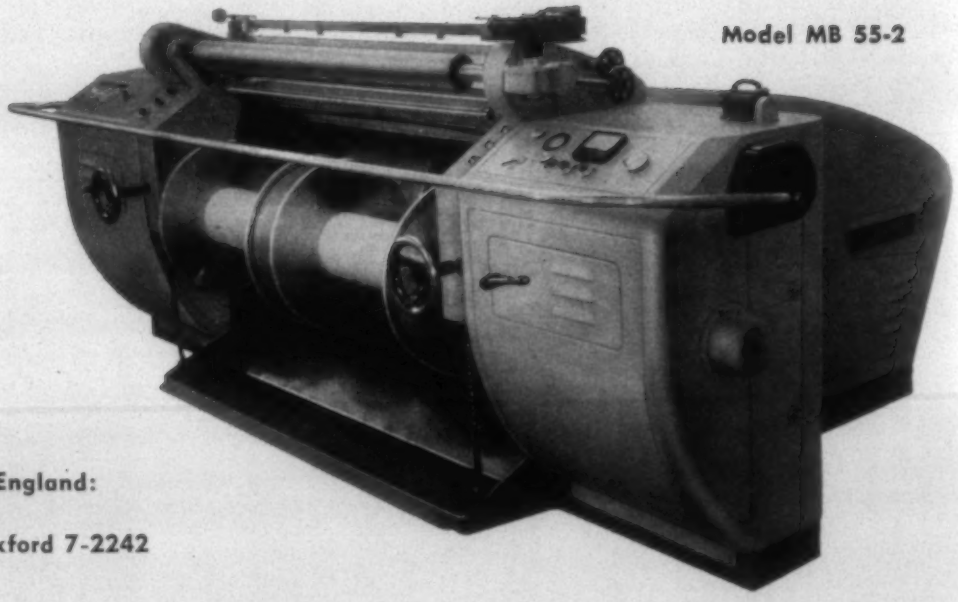
Fast

Normal sustained operating speeds up to 600 YPM.

Convenient

Individual controls are within full view and easy reach of operator. Simple changeover from one set-up to another. Has all of the most modern features and safety devices.

Model MB 55-2



Let us give you full information on this revolutionary Tricot Warper.

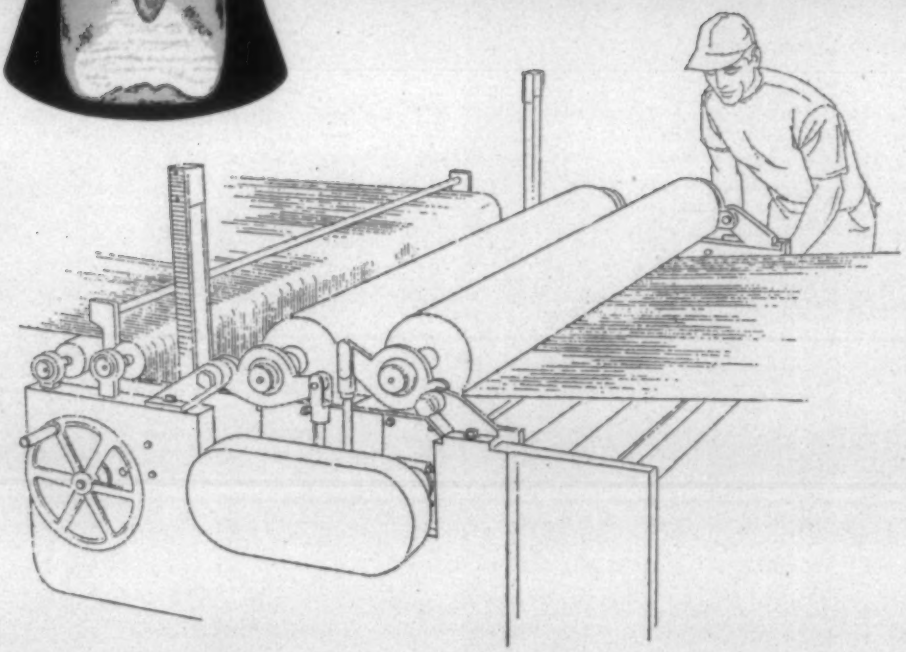
In Canada and New England:
Contact W. S. Clark
Montreal, Canada, Oxford 7-2242

THE LEADER AROUND THE WORLD
COCKER Machine and Foundry Co., Gastonia, N. C.

Plant and Offices: Ranlo, N. C. Mailing Address: Gastonia, N. C.

WORLD'S LARGEST DESIGNERS AND BUILDERS OF COMPLETE WARP PREPARATORY EQUIPMENT

FROM A KERNEL OF CORN THROUGH CHEMISTRY



Kofilm

ACETYLATED STARCH DERIVATIVE

NEW STANDARD FOR SIZING

There's been a change. In warp sizing results. They're now much more uniform. Because KOFILM, a unique acetylated starch, eliminates variations in viscosity and strength. As proved in mill after mill in little more than a year.

KOFILM prolongs viscosity stability over extended periods of time. Eliminates lumping and congealing. It forms exceptional films. High in strength. Extremely flexible. Very tough. Reduces stoppages. Helps produce more uniform yarn.

KOFILM is quick and simple to prepare. It is available in a complete range of viscosities for all constructions and blends. It is also recommended for wash 'n wear finishes. Why not compare it with whatever starch product you're now using? Write for a sample and data, telling something of the use you have in mind.

National

STARCH and CHEMICAL
CORPORATION

For The Textile Industry's Use

– NEW MACHINERY, EQUIPMENT AND SUPPLIES –

Anti-Static Agent

A new anti-static agent has been developed by the Onyx Oil & Chemical Co., Jersey City, N. J. Called Aston AP, this cationic polyamine anti-static agent is said to afford efficient non-durable protection against static charge formation and, at the same time, to provide a soft, drapey hand on fabrics. Aston AP is 100% active, and exhibits ease of solubility in water, together with a wide range of organic solvents. These chemical characteristics suggest its versatility in many textile and industrial anti-static applications, according to Onyx. Samples and further technical data are available. (Request Item No. H-1)

Sliver Lap Control

Livingston & Haven Inc., Charleston, S. C., has announced that the Patent No. 2,890,841 has been granted for the Long Pneumatic Sliver Lap Control System. This device, which employs air pressure to control quality in sliver lap and ribbon sliver machines in combed yarn textile mills, is said to have already proven its worth in many Southern mills.

The application to existing machinery reportedly improves both the quality of the laps and increases the efficiency of this operation in mills employing these units. The control system is similar in many respects to the Long Lap Control System for pickers, patented in February. Both are relatively simple steps toward automation and relieve the operator from much time-consuming mechanical adjustment, the company says. (Request Item No. H-2)

Oil-Repellent Finish

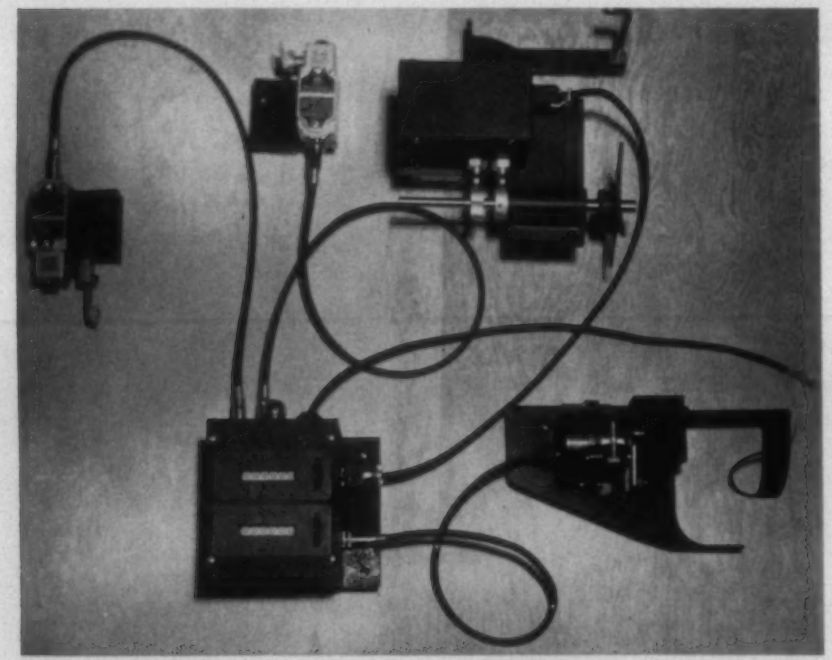
What is said to be the first finish to give washable fabrics the added value of repelling not only water stains but oil stains and dry soil as well has been announced by Minnesota Mining & Mfg. Co. The finish—Scotchgard brand stain-repeller for washable and wash-and-wear fabrics—is also the industry's first stain-repellent that can withstand both laundering and drycleaning, the company reports.

First to adopt the stain-repeller, after extensive tests by its own laboratories, was Burlington Industries Inc. Two Burlington divisions—Burlington Men's Wear Fabric Co. and Mooresville Mills—have been licensed to make the new finish available for the Spring 1960 selling season. "Our entire line of Blendomatic 70% Dacron and 30% worsted wash-and-wear fabrics will be available with the new Scotchgard stain-repeller," said Joseph A. Golden, president of Burlington Men's Wear Fabrics. John Russell, president of Mooresville Mills, pointed out that "The combination of our new Mercury sports fabric and the wash-and-wear stain-repeller opens up tremendous opportunities in the rainwear and entire sportswear fields."

Minnesota Mining reports that the finish can be used on virtually any fabric—washable, wash-and-wear, or drycleanable. It may be applied to cottons, rayons, silks, synthetics, or worsted-synthetic blends. It is expected to appear first in men's and women's suits, slacks, jackets, rainwear, and all types of active sportswear. It enables fabrics to repel dust and dirt and both oil-borne and water-borne stains, ranging from motor oil to soft drinks.

The company reports that even if staining materials are forced between the fibers of a treated fabric, they can be removed by household spot-cleaning methods without leaving a solvent ring. The treatment is invisible, odorless, and does not noticeably change the weight of a fabric.

(Request Item No. H-3)



This new bobbin calculator produced by Dean & Dixon Development Co. is said to make possible correct bobbin production records.

Bobbin Calculator

A new item called the Bobbin Calculator has been introduced by Dean & Dixon Development Co. of Charlotte, N. C. The Bobbin Calculator is said to answer the need for a positive method of measuring production on Barber-Colman spoolers.

Under the system now in general use, spooler production is measured by the number of boxes of yarn or tridents of cheese produced, with measurements marked and kept count of by an individual, as basis for pay. Generally accepted throughout the industry is the fact that the human element here involved results in errors, inconsistencies and favoritism to such an extent that in most cases, the mill habitually pays for more production than was actually run.

The new calculator was built with four basic aims: (1) To reduce spooling cost by paying only for work actually produced; (2) To find a fair and equitable method of paying spooler operators; (3) To simplify keeping time and pay rates; and (4) To make sure that each operator be paid according to his individual skill.

After intensive tests, and from results of several trial installations, the manufacturer of the calculator says it will make possible correct production records, elimination of favoritism in counting bobbins, and production increases as high as 30%.

(Request Item No. H-4)

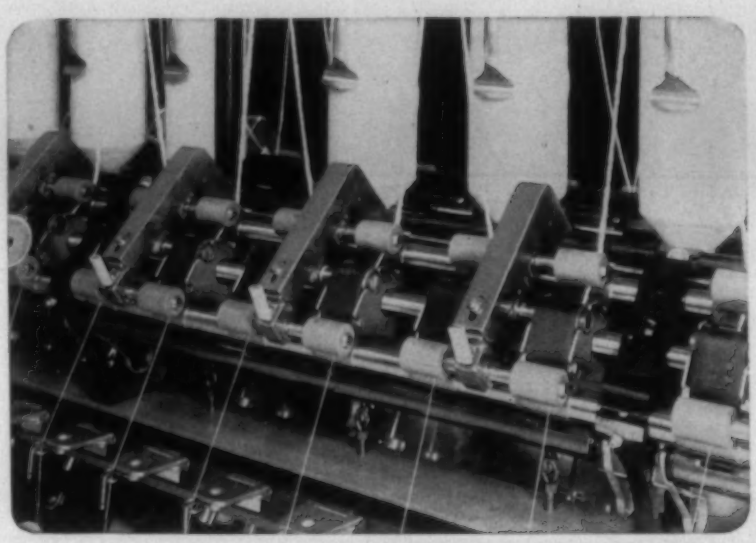
Tension Meter

The tension of a piece of cloth during processing influences production cost and quality. To check and maintain these critical tensions, Tensitron of Harvard, Mass., has brought out a new web tension meter. It features quick trigger insertion and cylindrical rollers without front flanges. Insertion

THE MOST SENSIBLE ANSWER TO GADGET-FREE TOP ROLL SUSPENSION

ROBERTS *PosiWate* SUSPENSION SYSTEM

PosiWate Ball Bearing Top Roll Suspension eliminates all cap bars and the need for top roll oiling. All three lines of top rolls have double-row ball bearings; heavier weighting can be handled when required. Weight distribution is positive. Hooks, short springs and other gadgets are not used. Roberts Ball Bearing Bottom Rolls with EvenGrip Fluting are also available.

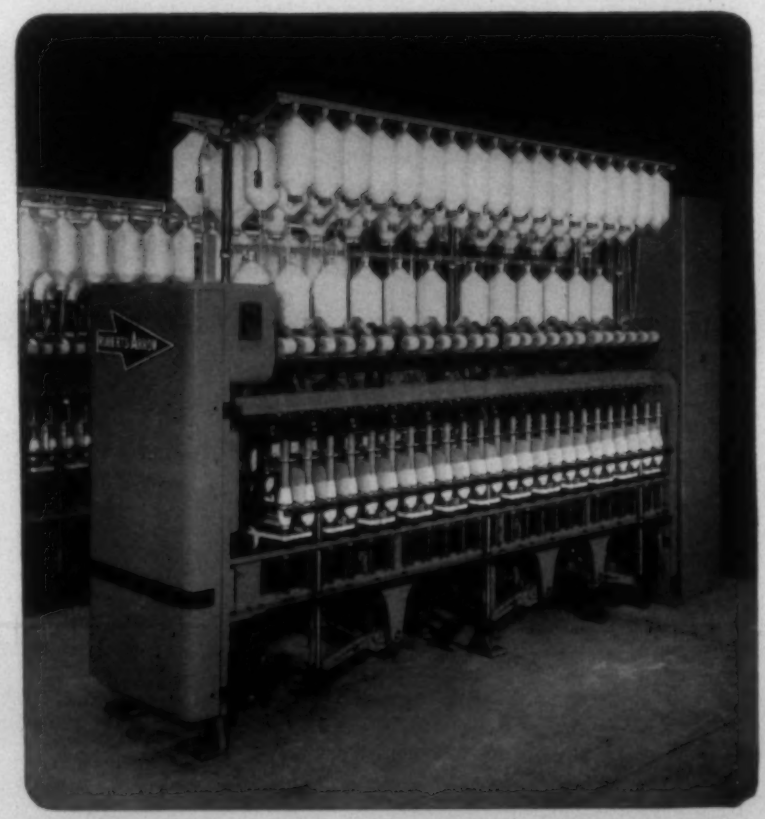


A FEATURE OF

ROBERTS ARROW

MODEL M-1

and changeover modernization for any make of frame

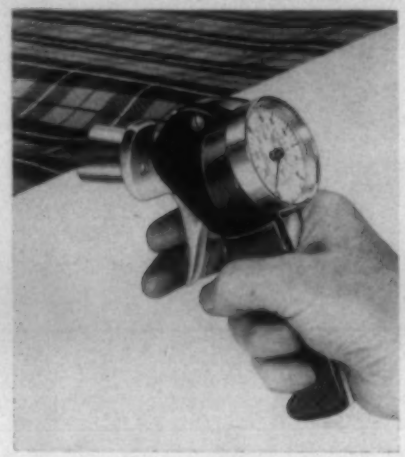


ARROW M-1 SPINNING FRAMES
for cotton and for synthetics
1½ to 3¼ inches long

- PosiWate Top Roll Suspension
- UnaRing Balloon Control
- EvenGrip Fluted Bottom Rolls
- Roberts Supreme Ball Bearing Spindles
- Double-Apron High Draft System
- UnitVac Power-Suction Cleaning
- Roberts All-Ball-Bearing Head
- Unitized Sectional Frame
- AeroCreel with Latch-Type Bobbin Holders

ROBERTS COMPANY
SANFORD, NORTH CAROLINA

FOR THE TEXTILE INDUSTRY'S USE—



This new trigger-operated web tension meter has been introduced by Tensitron Inc.

can easily be made in the side of a moving sheet. By cocking the trigger (like a gun) the two outer guide rollers are lowered. The tension meter is then inserted into the side of the sheet, web or selvage and the trigger released. This returns the outer reference rollers to test position where they lift the sheet against the sensing roller in the center. The latter is linked to a mechanical gear train which rotates an indicating hand over a dial facing the observer.

The standard rollers of the sheet or web tension meter are 1" long. It is possible to insert the tension meter either in the right side or into the left side of the selvage and determine such tension variations as may pull the sheet or web out of straight transport. By multiplying the width of the sheet whose tension was measured by the 1" rollers it is simple to get an average tension over the entire width of the sheet. If the right or the left side shows excessive tensions, proper corrections can then be made to produce even pull by mechanical adjustment immediately and by automatic control later on.

The web tension meter can also be inserted into the side of the warps and loom beams during weaving. Warp tension is thereby indicated during weaving and beaming. (Request Item No. H-5)

Colloidal Silica For Cotton

Monsanto Chemical Co., St. Louis, Mo., has announced the development of a new method for applying colloidal silica to cotton fibers at the time of mechanical picking of the cotton. Monsanto's colloidal silica, a product of the inorganic chemical division, is sold under the name Syton DS and is a dispersion of colloidal silica particles in water.

Application of the material to cotton fibers, particularly short fibers, is said to upgrade the cotton and to result in a number of advantages in the mill. These include increased yarn strength, stronger rovings, better abrasion resistance for knitted fabrics and an increase in mill production efficiency.

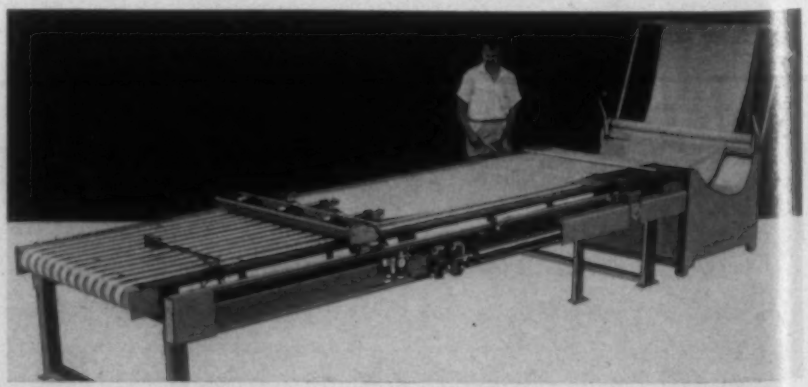
Syton DS, prior to this time, has been applied at the mill by means of special equipment. The new method of applying is said to be simple and requires no special equipment: the product is mixed with the water that is normally used to aid in the operation of the spindles on the mechanical picker, which is equipped with a tank for this purpose. Amounts applied vary from less than 4 lbs. to 10 lbs. per bale. Application of the colloidal silica in this manner does not interfere with ginning operations, Monsanto reports.

(Request Item No. H-6)

Cutting Table

Sjostrom Machine Co., Boca Raton, Fla., has announced the development and production of an automatic cutting table for curtains and draperies. The conventional method of cutting curtains is for the operator to walk up and down the table, pulling the material forward, walking back to make the cut and walking down again to drop the cut curtain in a box. Operators walk as much as 12 to 16 miles per day. The Sjostrom table eliminates this constant walking and gives the operator greater production with less fatigue.

The machine consists of a scray, power driven nip-rolls, a cutting table, adjustable tension bar, conveyor belts and various electronic controls. The feed rolls on the scray are set for the length to be cut—mechanical fingers grip the front edge of the material and pull it past the operator to the



A new type of cutting table has been introduced by Sjostrom Machine Co., Boca Raton, Fla. The unit handles material up to 48" in width and cutting lengths can be set at from 36 to 120".

act length required—the operator stands in one position and cuts only. Lengths can be set from 36 to 120" and the standard machine handles material up to 48" wide. After the operator makes the cut, the cut curtain is carried away on conveyor belts, while the next curtain is being pulled forward from the scray which has already fed in a curtain length from the box or roll. Thus the operator does not move from his position. From two to three seconds is required to pull a 120" curtain past the operator, so if the operator makes the cut in two seconds, a production of 12 to 16 per minute is feasible.

Material with a bias as much as 4" is taken care of by elongated fingers furthest from the operator. For handling cutouts or matched panels, the operator makes the first cut, then positions the material manually for the next cut 2 to 3" apart. For drapery materials the machine is equipped with a stacker which stacks the cut panels over a bar or over a table. If it is desired to separate panels, a stacker with turnstile is provided so that four different patterns can be stacked over four different bars. (Request Item No. H-7)

Self-Contained Electrotense

Lindly & Co. is making available this self-contained model of the Electrotense for individual application.

A new specially designed self-contained model of the Lindly Electrotense for individual rather than group application has been introduced by Lindly & Co., Mineola, N. Y. The original Electrotense was designed for application on creels to produce uniform and even tension in beams for warping. For such installation, the pulsating low voltage is distributed by a wiring system from a centrally located power supply. New applications for single tension control heads have come to light.

For such uses, the spread out location of the units makes it uneconomical to distribute the low voltage and provide individual tension control. Examples of such applications are single end make-up packages for looms, single end take-ups in laboratories and Unifil loom winders.

The new unit, supplied with 110, 220 or 440 volts a.c. will create tension on a

single end passing between the discs. Tension range is 5 to 75 grams, easily set by an incorporated potentiometer.

(Request Item No. H-8)

Improved Dyes

Improvements in the brightness of its jade green vat dye and in the printability and resistance to migration of two of its brown vat dyes have been announced by American Cyanamid Co., New York City. The improved jade green product known as Calcoloid Jade Green NC Supra Double Paste is said to provide clarity, full-hued purity, high tinctorial strength and all-around good fastness in extra bright shades. It is capable of dyeing a wide variety of fibers easily, and is said to produce good unions on cotton and viscose.

Easy to apply at elevated temperatures on all types of dyeing equipment, Calcoloid Jade Green NC is designed to produce good color yield under all dyeing conditions. To obtain bright green shades in prints, Cyanamid recommends its improved Calcosol Jade Green NP Supra Double Paste.

In actual mill production, higher and more uniform strength prints were said to be obtained with Calcoloid Brown RRP Paste, an improved brown vat for printing under most aging conditions. Both flash aging and conventional steam aging produced true shade and full strength.

The second improved brown vat, Calcoloid Brown GL Double Paste, is resistant to migration during drying of pigment-padded cloth. It gives dyeings with excellent surface appearance and uniformity by the pad-steam method, Cyanamid reports. These improved vat dyes are thin non-settling pastes that have a controlled particle size. They are also non-drying and non-specking.

(Request Item No. H-9)

Corrosion Resistant Valves

For corrosion-resistant applications not covered by other valves, Milton Roy Co., Philadelphia, Pa., is offering the newly-developed polyvinyl chloride (PVC) relief and back pressure valves. Inexpensive Milton Roy PVC valves are said to protect positive displacement pumps metering such process liquids as dilute sulfuric acid, hydrofluosilicic acid and hypochlorite solutions from excess pressures.

Both relief and back pressure valves have Kel F or Teflon diaphragms protecting the upper internal parts from contact with corrosive liquids. The lower valve body (and the ball guide in the relief valve), which are in contact with the process liquid, are constructed of PVC. Alloy seats and ball valves are available in 316 stainless steel, Milroy stainless steel, and Hastelloy C.

Manufactured in 1/4 and 1/2" sizes, the PVC relief valve can withstand pressures to 400 p.s.i. at 68° F. and to 200 p.s.i. at 140° F. The PVC back pressure valve is manufactured in the same sizes and can withstand pressures to 200 p.s.i. at 140° F.

The special design of the relief valve is said to insure tight shut-off below set pressure—a feature which is particularly important in controlled volume chemical metering. The back pressure valve maintains a head on the controlled volume pump discharge above suction pressure so that a liquid can be metered into a low pressure system.

(Request Item No. H-10)

Torsion Balance

A new time-saving dial torsion balance is being offered by The Torsion Balance Co., Clifton, N. J.

Weighings now can be made in one-third of the time previously taken with the new Dial Balance, according to the manufacturer, The Torsion Balance Co., Clifton, N. J. Capacity of the unit is 500 grams. The new design is said to feature a simple graduated dial which can be turned without arresting the oil-damped balance, replacing

the time-consuming "cut-and-dry" procedure necessary with the graduated beam and slide weight of conventional balances. This means that the time-consuming portion of the weighing (below ten grams) can be "dialed in" in one-third the time.

The new dial mechanism retains its original accuracy after more than a million weighings. The firm says that it unconditionally guarantees the new dial mechanism. Previously most conventional laboratory balances used a graduated beam and slide weight for "fine" weighing after the weight had been determined within ten grams. Under the old procedure the balance is arrested, slide weight positioned, balance released, balance comes to rest, position of indicator noted, balance arrested again, slide weight repositioned and so on until the weight is determined within 0.1 gram.

The new dial is graduated from 0 to 10 grams by 1.0 gram (0.1) graduations. The dial is readable to 0.02 gram. The balance is oil-damped to minimize oscillation and greatly facilitates the weighing operation. The metal case has a corrosion resistant gray finish constructed to exclude dust and chemicals. The unit measures 11¾ x 6 x 6¾". (Request Item No. H-11)

New Strapping Presses

Signode Steel Strapping Co., Chicago, Ill., has announced a new series of compression strapping machines designed to compress and strap textiles into compact, solid, stable, attractive bales that cost less to handle, store, ship and receive.

This equipment is available in two basic capacities for 6,000 lbs. and 16,000 lbs. maximum compression and also in two models—the Model CS and the Model CSF. Both models provide a mounting system for Signode power tensioning and sealing tools. It permits these tools to be quickly and easily positioned at any point on the face of the bale or bundle. Model CSF also provides equipment to feed the strapping around the bale. This strap feeding equipment is powered by ¼-h.p. gearhead motors that feed the strapping at 3.7 feet per second through long-lasting metal telescoping strap chutes.

The structural frame of both machines is of a cantilever design which permits unobstructed accessibility to the front and two sides of the load. Loads up to 84" high, 72" long and 65" wide can be compressed and strapped. An optional built-in turntable facilitates turning the load to apply strapping in two directions. Other optional equipment includes retractable strap chutes and power conveyor.

The platen is fully guided by heavy duty ball bearing rollers. In addition, a pinion gear and rack equalizing system is utilized which maintains the pressure platen in horizontal alignment. The height of the base without a conveyor is 5¼" for the 6,000 lbs. machine, and 8¼" for the 16,000 lbs. machine; with a dead roller conveyor it is 9¾" for the 6,000 lbs. machine, and 12¾" for the 16,000 lbs. machine.

(Request Item No. H-12)

For the Mill Bookshelf

Textile Intermediate

Butyendiol is the subject of a comprehensive review which has just been published by Antara Chemicals, a sales division of General Aniline & Film Corp., New York City. The 40-page booklet presents the physical and chemical properties of butynediol and discusses its industrial applications. Information is also given on storage and handling of the chemical.

Butynediol ($HOCH_2C = CCH_2OH$) is a new intermediate which is prepared by a high pressure acetylene process. It reacts as a glycol and as a distributed acetylene. It forms cyclic compounds by trimerization, dimerization and esterification. It is used as an intermediate for textile auxiliaries. Butynediol itself may be used to advantage as a corrosion inhibitor, defoliant or solvent. (Request Item No. H-13)

Colorimeter And Spectrophotometer

A 4-page folder describing its new Model D Color-Eye colorimeter has been issued by Instrument Development Laboratories, Attleboro, Mass. The unit is described by the company as a dual-purpose colorimeter and abridged spectrophotometer. It is designed to quickly and accurately measure color differences in all kinds of materials, both solid and liquid, and to indicate differences in numerical values which can be easily interpreted. The unit is said to combine tricolorimetry and spectrophotometry in a single instrument thus making possible to exercise precise color control and to establish color standards, and to conduct special analytical color research. It is said to measure color differences as small as 0.1% in both light and very dark colors.

(Request Item No. H-14)

Nylon Slashing Method

The Chemstrand Corp., New York City, has announced the availability of a technical bulletin setting forth the full details of its Chemize method for slashing producer twist nylon.

Acknowledging the suitability of other methods of slashing in answering the industry's needs, Chemstrand noted that Chemize has been developed and offered to the trade not as a replacement but rather an addition to these other methods for use areas where its particular modifications may prove favorable.

Chemstrand states that the new method requires only minor modification of existing machinery and enables producer twist

yarn to be slashed and woven without prior winding, uptwisting and steaming. The bulletin contains detailed information also on the new Chemstrand nylon warp wind package which was developed for use in conjunction with Chemize slashing.

Following this method, the size-impregnated yarns are wet-split and partially dried in a separated state before being reassembled and completely dried. Partial drying surrounds the undried size coating on each yarn with a non-tacky layer of substantially dry size which prevents adjacent yarns from sticking. This is said to minimize filament breakage when the yarns are split on the front of the slasher before beaming, and to produce a size coating characterized by a high degree of uniformity and abrasion resistance. (Request Item No. H-15)

Conveyors

A new 16-page catalog describes two types of conveyors made by the conveyor division of The American MonoRail Co., Tipp City, Ohio. Case histories show how savings are effected by American Cable-Way conveyors, a conventional trolley system pulled by a continuous cable, driven by powered sprocket-wheels. Capacities are 80, 160 and 250 lbs. per trolley.

The American Chainless conveyor has eight-wheeled trolleys which are connected by steel rods terminating in ball and socket joints. It has no srocket wheels or chain, and uses an in-line catepillar drive unit. Capacities are 100 to 400 lbs. per trolley. (Request Item No. H-16)

Adjustable Speed Drives

A condensed specifications bulletin describing the company's line of adjustable speed drives has been published by Cleveland Machine Controls Inc., Cleveland, Ohio. The 2-page bulletin gives condensed specifications for the Series 25, 35 and 200 adjustable speed drives. The units range from 1/6 to 10 h.p. Detailed information on each series is available from the company. (Request Item No. H-17)

Tubular Products

The tubular products division of The Babcock & Wilcox Co., Beaver Falls, Pa., has published a new technical data card of interest to engineers, buyers and others involved in purchasing of pipe. The card, TDC-191, contains the dimensions and weights per foot of pipe in sizes ⅛ through 36" for all schedules. (Request Item No. H-18)

Metallic Toothed Clothing

Bulletin No. 444 describing its Bi-Temp wire has been published by Proctor & Schwartz Inc., Philadelphia, Pa. Bi-Temp wire is the latest Proctor development of rigid metallic toothed clothing. Bi-Temp is heated treated and the teeth are hardened to a degree calculated to give the best performance with respect to abrasion, ability to wind on the surface of the cylinder without stress, permitting straightening of the teeth without breaking, and sufficient rigidity to be straightened repeatedly and hold its original shape. Proctor produces both surface wound and groove wound wire. (Request Item No. H-19)

Viscosity Control System

The Norcross Corp., Newton, Mass., has published Bulletin No. V-1224 describing its automatic viscosity control systems for adding solvent. The system consists of an explosion-proof measuring element, a controller suitable for purging or for remote installation out of the hazardous area and an explosion-proof solvent valve with an adjustable part.

In operation, the viscosity is measured by the measuring element and is electrically transmitted to the controller where it may be indicated or recorded. When the viscosity exceeds the control point setting, the solvent valve is opened, adding solvent to maintain the desired viscosity.

The unit is said to improve product uniformity, free the operator to do other work, to insure optimum consumption of solvents, inks and coatings, and to simplify duplicate runs. (Request Item No. H-20)

Pin Drafters And Pacific Converters

Warner & Swasey has published a new 4-page folder titled "Textile Job Report No. 23." The report describes the installation of Warner & Swasey's Pacific Converters and Pin Drafters at Pharr Yarns Inc., McAdenville, N. C. Pharr produces yarns of nylon, Dacron, Orlon, wool and blends. Nine Pacific Converters cut synthetics to the specified lengths and blend it with natural or synthetic fibers. The entire production of blends, worsteds and synthetics is processed on Pin Drafter intersecting draw frames. (Request Item No. H-21)

Electric Lift Truck

A new circular describing the heavy duty Sitdrive Model C Spacemaster electric fork lift truck is available from Lewis-Shepard Products, Watertown, Mass. Designated as Circular 32B, the 6-page, 2-color presentation contains illustrations, specifications and operating characteristics on the new Sitdrive Model C. A complete description of the exclusive Inchomatic drive control system that permits exact inching and load spotting is explained. The Sitdrive Model C is available in 30 different models to 4,000 pounds. (Request Item No. H-22)

Conversion Factor Chart

A reference table for engineers and other executives in wall chart form has been published by Precision Equipment Co. Included are common conversions such as inches to centimeters or watts to horsepower as well as many conversions that are difficult to locate in reference manuals (such as atmospheres to kilograms per centimeter, centimeters per second to miles per hour, cubic

feet to liters, microns to meters, quintals to pounds, etc.).

(Request Item No. H-23)

Steel Equipment

The new 1959-60 reference manual for steel equipment No. 487 is available from Equipto, Aurora, Ill. New subjects covered in this edition include slotted angle, mezzanine and floor grating, shelf filing, and large drawer units, as well as the shelving, lockers, work benches, carts and other storage equipment.

(Request Item No. H-24)

Adjustable Speed Drives

A 16-page, 2-color bulletin describing the new ¼ to 25 h.p. line of Polydyne mechanical adjustable speed drives is available from General Electric, Schenectady, N. Y. Bulletin GEA-6806 discusses principles of operation, configurations and features, and includes mounting positions, rating tables and descriptions of available accessories. Also discussed are the benefits of mechanical adjustable speed drives, and how to select and specify Polydyne units.

(Request Item No. H-25)

Cotton In Russia

The National Cotton Council has released a 31-page booklet entitled "Cotton In Russia." The report, written by Leonard A. Mobley of the council's foreign trade division, concludes that the outlook for cotton in Russia seems to hang largely on the direction of Soviet politics. Mobley points out that a significant expansion in raw cotton exports by Russia appears doubtful in the near future.

According to the study, Russia has the land, labor and technical ability to greatly expand its current production of about seven million bales per year. In 1957 Russia was second to the United States in total cotton production.

"Judged by Western standards, it would seem that Russian cotton for the next few years will probably not be a much heavier factor in international trade than at present," the report says. In 1958 estimated Russian exports totaled about 1,400,000 bales, which was nearly one-third of U. S. exports.

The report concluded, "The Russians, however, do not necessarily operate by Western standards. Future political decisions will be the deciding factors." Mobley said that the Soviets will have to put much more capital and research effort into their cotton production just to meet their programmed increases in domestic consumption.

The booklet has 18 photographs depicting various aspects of Russian cotton production. Copies can be obtained at 50 cents each from the National Cotton Council, P. O. Box 9905, Memphis 12, Tenn.

The Synthetic Fiber Industry

Dr. Joseph Airov, associate professor of economics at Emory University, Ga., has authored a book describing "The Location of the Synthetic-Fiber Industry." The study deals with the characteristic geographical location pattern—and the economic forces which determine it—in the synthetic fiber industry of the U. S. The author predicts the regional distribution of this industry's future growth and estimates the possibilities of expansion in terms of employment and capital investment. Airov reviews the development and use of production functions, identifies market and supply areas, discusses techniques for estimating regional cost differences, and analyzes cost computations to determine minimum cost regions and sites. The book is available at $9.75 from John Wiley & Sons, 440 Fourth Ave., New York 16, N. Y.

Handbook Of Textile Fibers

"Handbook of Textile Fibers" is the title of a recently published book authored by J. Gordon Cook, for many years fiber research chemist with Imperial Chemical Industries Ltd. of England. The author attempts to list all fibers presently being produced in the world. The procedure followed with each is: first, an introductory section describing the source, its historical and economic background and the forms and sizes in which it is available; second, a production and processing section, in which the methods of production or manufacture are described and processing information is outlined; third, a section dealing with structure and properties; finally, there is a section on the fiber in use which describes the behavior of the fiber in practical use. The book is available from Merrow Publishing Co. Ltd., 276 Hempstead Rd., Watford, Herts., England. The price is approximately $2.25.

Serving The Textile Industry

Geigy Dyestuffs Moves Charlotte Office

Geigy Dyestuffs, Ardsley, N. Y., division of Geigy Chemical Corp., has just completed the moving of its offices from 528 W. Eleventh Street, Charlotte, into its new building on Bellhaven Boulevard, according to Frank F. Myers of Geigy's Charlotte office.

Situated on a 13-acre plot, the new one-story structure contains 60,000 square feet of floor space, including offices, laboratory and warehouse. The new building is constructed of brick, concrete, steel and aluminum.

Warner & Swasey Co. Create Marketing Department

Creation of a new marketing services department which will co-ordinate and provide single control over all areas of The Warner & Swasey Co.'s marketing activities not directly connected with field selling, has been announced by L. M. Cole, vice-president in charge of sales. Heading the new department as director of marketing services is Baxter Fullerton, former assistant to the vice-president in charge of sales. He has been with the company since 1942.

Fullerton's responsibilities will include advertising, market research and statistics, sales promotion, publicity and public relations as they pertain to products, and other marketing functions apart from actual selling.

According to Cole, the new department has been created to meet the expanding marketing needs of the growing number and complexity of products manufactured by Warner & Swasey's machine tool, earth-moving equipment and textile machinery divisions.

Celanese Corp. Organizes Three New Companies

Celanese Corp. of America, New York City, has organized three new companies to administer the manufacture and marketing of its fiber, chemical and plastics products, according to Harold Blancke, president. The companies, Celanese Fibers Co., Celanese Chemical Co., and Celanese Plastics Co., will function as operating divisions of the parent firm. They succeed the former Celanese fibers, plastics and chemical divisions.

John W. Brooks has been appointed president of Celanese Fibers Co. W. Kix-Miller has been named president of Celanese Chemical Co. and of Celanese Plastics Co. Both Brooks and KixMiller will continue to serve, in addition, as vice-presidents of the parent concern.

KixMiller has been with the Celanese organization since 1946, and since 1955 had been vice-president in charge of the company's former chemical division. He has been a director of the parent company since 1956. Brooks joined Celanese in 1955 and for the last three years had served as vice-president in charge of the company's former fibers division. Previously he had been associated with Springs Mills Inc.; Deering Milliken & Co.; and the former Nashua Mfg. Co., in various marketing and sales capacities.

Saco-Lowell Shops Reports Loss For First Half

Reporting the highest textile machinery order backlog in many years, and forecasting a profitable fourth quarter for the company, Thomas J. Ault, president of Saco-Lowell Shops, Boston, Mass., announced recently that losses for the first-half year were approximately as forecast last December.

In addition to noting improvement in the textile machinery end of Saco-Lowell's business, Ault also reported a 50% increase in non-textile sales over the same period last year. Losses for the second quarter amounted to $971,562, against $1,147,774 for the first quarter, bringing the first-half losses to $2,119,336.

Commenting on the loss, Ault said: "Two different factors are worth noting: First, the prodigious job of rehousing and the attendant difficulties in starting up our operations in the South have put us about six weeks behind our planned delivery schedules. Second, the textile depression, which I hope is now terminated, compelled a continuation of an unsatisfactory price level longer than anticipated. To help improve this condition, prices are being revised upward, effective August 1."

Ehrhardt & Leimer To Display At The Milan Textile Exhibit

A complete display of the cloth guiding accessories and tenter frame attachments of the German firm of Ehrhardt & Leimer will be shown at the Third International Textile Machinery Exhibit at Milan, Italy, September 21-22. Ehrhardt & Leimer is represented by Ernest L. Frankl in this country.

Displayed in operation at the exhibition will be various types of cloth guiders with mechanical, pneumatic, electric or photo-electronic control, tenter frame entrance field controls with mechanical and electronic feelers, driven selvage uncurlers, metal detectors, seam detectors, selvage cutting device, selvage stiffening device. The company will also have a new control apparatus for jigs as well as its rotary mirror device which permits continuous inspection of fabrics running at very high speeds.

Texize Chemicals Inc. Licensed By Monsanto

Texize Chemicals Inc., Greenville, S. C., has been licensed by Monsanto Chemical Co. to manufacture Sterox 21-K, which is used for the fulling and scouring of wool and wool blends. Monsanto has applied for a patent to cover the new development. Texize will distribute the new material, plus Monsanto's complete line of surfactants.

Sterox 21-K is said to reduce chemical raw material costs, processing time and handling problems in textile mills. Monsanto also reports that it promotes uniform shrinkage and high tensile strength in fibers.

American Viscose Corp. Reports Increased Earnings

The earnings of American Viscose Corp. and its 50% equity in the earnings of its associated companies — The Chemstrand Corp. and Ketchikan Pulp Co.—for the first six months of 1959 were equal to $3.14 per share, up from 74 cents in the same period of 1958. The combined earnings for the second quarter of 1959 were equal to $1.61 per share of American Viscose as compared with 40 cents for the corresponding quarter of last year.

The company reported that earnings from its own operations were $7,784,000 or $1.53 per share for the first six months of

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1959 compared with $429,000 or eight cents per share for the same period last year. The corporation's first half sales were $126,710,000—an increase of 31% over the corresponding period last year. For the second quarter of 1959 earnings amounted to $4,140,000 or 82 cents per share as contrasted to a loss of $254,000, equivalent to minus five cents per share for the corresponding quarter of 1958. Sales for the second quarter were $64,133,000—36% higher than 1958's second quarter.

It was reported that the American Viscose equity in the earnings of its 50% owned companies in the second quarter of 1959 amounted to $4,038,000 or 79 cents per share of American Viscose as against $2,326,000 or 45 cents per share for the same period of 1958.

According to the company, the improvement in operating results for the first half of 1959 is due to the increased demand for all Avisco products. Of particular importance in the improved business was the recovery in the automotive industry which created a larger demand for Avisco tire yarn and Tyrex viscose tire cord.

Celanese Forms Company To Evaluate Marketing Areas

Celanese Development Co. has been established to evaluate potential new marketing areas and expansion opportunities for Celanese Corp. of America, New York City, and foreign affiliates, according to Harold Blancke, president of the parent company. Appointed president of the new company is Fred Luss, since 1957 managing director for Switzerland of Ford Motor Co.'s international division, with offices in Zurich.

Celanese Development Co. will be headquartered at 180 Madison Ave., New York, N. Y., as is the parent firm. The new company will provide continuing market and economic studies and contracts relative to the extension and development of the business of the parent company and its foreign affiliates. Appointed vice-presidents of Celanese Development Co. are: Bjorn Anderson, Emery N. Cleaves and William L. O'Donovan, formerly vice-presidents of Celanese Corp., and Harrison C. Givens Jr., formerly vice-president of Celanese International. Named technical director of the new company is William M. Shine, formerly assistant to the vice-president and technical director of the parent concern.

Warner & Swasey Experiences Tremendous Earnings Increase

Warner & Swasey Co.'s net income for the first six months of the year jumped to $2,136,430 as compared with $507,780 for the same period in 1958. The company, which has headquarters in Cleveland, Ohio, reported a rise in product income to $28,182,016 or $2.15 a share. This compares with $21,012,436 or 51 cents per share for the first half of 1958. Of the total product income, textile equipment accounted for $1,519,344. A quarterly dividend of 50 cents a share was declared by the company. This is an increase of ten cents over the rate paid for the previous five quarters.

Greenville Steel & Foundry Merged With Carolina Steel

The Greenville Steel & Foundry Co. of Greenville, S. C., has merged by stock exchange with the Carolina Steel Corp. of Greensboro, N. C. N. P. Hayes has been named president of the Greenville Steel & Foundry Division. D. H. Wallace Jr. will serve as chairman of the board of that division. Thomas P. Noe has been chosen as executive vice-president in charge of operations.

The Greenville division will continue to manufacture its line of wet processing equipment for the textile industry. Parrott & Ballentine, Greenville, S. C., will continue to act as sales agents for the division.

Fiber Industries Inc. Schedules Polyester Production For 1960

The new plant of Fiber Industries Inc., now under construction at Earl, N. C., will be producing commercial quantities of Teron polyester fiber by the middle of 1960, according to James H. Black, president. Black said the schedule to start production one year earlier than originally planned had been made possible by the granting of a license to Fiber Industries by The Du Pont Co. which permits Fiber Industries to produce and market a polyester fiber in the U. S. before expiration of the basic patent in July 1961. Originally, it was anticipated the new plant would not get into production before 1961.

The polyester fiber, known chemically as polyethylene terephthalate, currently is one of the fastest growing synthetic fibers. It was developed in 1941 in the laboratories of Calico Printers' Association Ltd. in Great Britain. Rights to manufacture and market the fiber in the U. S. were sold by Calico Printers to Du Pont.

Fletcher Southern Plans To Double Plant Size

Fletcher Southern, Southern Pines, N. C., manufacturer of wooden parts for narrow fabric textile machinery, will enlarge its plant by 15,000 square feet, doubling its floor capacity. The company has been in operation for six months. Edward Taw, president, said the new addition will cost $70,000. Some 22 persons are presently employed by the firm.

Armstrong Cork Co. To Exhibit At Milan

Extreme lap resistance and anti-static qualities of Armstrong Accotex roll coverings will be demonstrated by Armstrong Cork Co., Lancaster, Pa., in its exhibit at the International Exposition of Textile Material at Milan, Italy, in September. Special equipment to show how Armstrong Cork

prevent lapping and static during spinning operations will be the feature of the company's exhibit.

Armstrong will display its complete line of textile products including Accotex roll coverings, Accotex aprons, loom take-up roll coverings, loom press roll coverings, loom binder, clearer covering and weave room supplies.

Among the newest products to be shown are a synthetic loom binder material called CN889 and a long-life bottom apron called Accotex NO-7876.

James Hunter Inc. Moves To New Plant

James Hunter Inc., Mauldin, S. C., has moved into a new plant located on the Old Laurens Road outside of Mauldin. The firm, a subsidiary of James Hunter Machine, North Adams, Mass., produces textile machinery, automatic blending systems and fiber processing machinery.

Chemstrand Corp. Reports Lower Sales, Earnings

The Chemstrand Corp.'s sales on a consolidated basis for the second quarter amounted to $52,060,000 compared with $54,134,000 in the first quarter of this year, according to Edward A. O'Neal Jr., president. Sales for the six months to June 30 totaled $106,194,000 as compared with sales of $72,179,000 in the first half of 1958.

Net earnings on a consolidated basis after all charges and taxes for the June quarter were $7,166,000, compared with $7,662,000 in the preceding three months. Net for the six months to June 30 was $14,828,000 as compared with $6,376,000 for the same period last year.

Recently announced plans for expansion of nylon production facilities with a new plant at Greenwood, S. C., will make available additional nylon in late 1960.

Hayes Textiles Named Agent For National Drying Machinery

The National Drying Machinery Co. of Philadelphia, Pa., has announced the appointment of the firm of Hayes Textiles Inc., Spartanburg, S. C., as Southern agent for sales of National loop, tenter, roll, piece goods, skein, heat setting, curing and other drying and conditioning equipment.

American Enka Corp. Reports Record Sales

With sales setting a new high record for the first 24 weeks of this year, American Enka Corp.'s net income for the period rose sharply to $3,484,000 or $2.64 per share, compared with only $4,700 for the same period in 1958. William Gage Brady Jr., chairman and president, reported to shareholders recently that the company's consolidated net sales increased 81% to $49,997,000 compared with $27,587,000 in the first 24 weeks last year.

For the second 12 weeks, ended June 21, net sales totaled $26,255,000 compared with $12,103,000 a year ago. Net income for this period amounted to $2,084,000 or $1.59 per share, compared with a net loss of $360,000 for the second 12 weeks of 1958.

"The company's rayon filament yarn and nylon plants are currently operating at capacity," Brady reported. "In order to meet customer demand, further increases have been made in the production of Tyrex viscose yarn for tires, and efforts in this direction will be continued. Enka is now the largest supplier of this yarn to the tire industry."

Aside from high volume operation, he reported, Enka's 1959 earnings have been favorably affected by moderate increases in the prices of rayon filament yarn. The firming of the price structure has compensated in some measure for past price cuts as well as substantially increased labor, material and overhead costs.

The present outlook, according to Brady, is for a continued good level of business throughout the year, although percentage gains over last year's sales and earnings will probably not continue as high as for the first 24 weeks of 1959.

Fiber Research Re-Assigned By American Cyanamid Co.

Fiber research operations of American Cyanamid Co., New York City, previously assigned to the firm's central research division have been transferred to the fibers division. The transfer is in line with the company's policy of assigning research and development responsibility to operating divisions, the company said. The fibers division, established in August 1956, markets the company's Creslan acrylic fiber.

Dr. Nat H. Marsh, manager of Cyanamid's acrylic fiber plant in Santa Rosa County, near Pensacola, Fla., has been named director of research and development for fibers division. Originally manager of the research group which developed Creslan at the company's Stamford, Conn., research laboratories, Dr. Marsh was named to the Florida plant post in 1956. He will be responsible for all Cyanamid product research and process development in the fibers field.

Richard Lindenfelser has been appointed director of fibers research to supervise the division's research and development activities at the Stamford Research Laboratories.

Saco-Lowell Shops Receives Gun Contract

Saco-Lowell Shops, Biddeford, Me., has been awarded a $372,610 by the Boston Ordnance District of the U. S. Army Procurement Agency in New England. The money will be used by Saco-Lowell Shops for tooling, machinery and other facilities needed to get the production line started on a $2,700,000 contract for the Army's new M-60 machine gun. The weapons will be manufactured by the company's automotive division.

textile bulletin

VOL. 85 AUGUST 1959 NO. 8

The Purchasing Agent

HOW DOES HE BUY WHAT AND WHY

TEXTILE industry purchasing agents* consider almost half of their calls from salesmen unnecessary. In spite of this startling fact: (1) PAs rely most heavily on salesmen to supply them with new product information; (2) PAs don't require salesmen to make appointments to see them; and (3) some 21% of the PAs polled don't object to "social calls" from salesmen. These and other interesting facts are brought out in replies to a questionnaire on purchasing practices submitted by this journal to the PAs for 60 textile manufacturing organizations.

Answers to the questionnaire showed an almost total lack of agreement on purchasing procedures. Other than "not requiring salesmen to make appointments to see them," the PAs approach agreement on only one question. "Do you base your supply orders on: (1) quality alone?; (2) price alone?; (3) vendor's reputation alone?; and (4) combination of these considerations?" Some 98% of the PAs base their purchases on a combination of these considerations. The other 2% say that quality is the only consideration.

The high cost of keeping a salesman on the road makes the answer to the question, "Generally speaking, what percentage of your calls from salesmen would you classify as unnecessary?" stunning. An average of the answers shows approximately 44% of all sales calls are considered unnecessary by the PAs.

Opinion Tempered

This opinion is tempered by many of the PAs with statements as: "It is our policy to see every salesman who calls and give him a frank appraisal of our need for his service;" and "We value the salesman's time and often find his advice and experience most helpful. We feel that as a whole they are a fine group of men." Another PA says, "A salesman should be cordially received with a minimum of social talk from either the buyer or salesman." He warns, however, that the salesman "should not overstay his welcome." A number of PAs say they do not like to have salesmen call just before lunch time or late in the evening when mail is being signed or at quitting time.

In buying general supplies and repair parts, do you always buy from the original supplier?
Number of P.A.'s replying—58
Yes—12% No—88%

"Shopping around" for general supplies and repair parts has been mentioned many times at recent meetings of various textile trade associations. So, we put this question to the PAs, "In buying general supplies and repair parts, do you always buy from the original supplier?" A total of 88% of the PAs say they do not. The advantage of "shopping around" is seen from the fact that 91% of the PAs say they can *save money* by doing so.

Do you find that you save money by "shopping around" for these items?
Number of P.A.'s replying—57
Yes—91% No—5% Sometimes—4%

Specific money saving items mentioned most often include cast iron gears, slab and belt leather, electrical parts, V-belts, carding and spinning parts, machine parts, nuts and bolts, and ball bearings. Savings are also possible by careful purchase of paper products such as corrugated cartons and Kraft paper. Loom parts listed include crankshafts, quill cans, strapping, picker sticks, belting, fur, springs, fiber products and loom beams. Carding and spinning parts include spinning bolsters, picker screen, change gears, rings, quills, revolving clearers, ball bearings, leather, motors, spinning aprons, spinning bands and picker aprons. Savings are also possible on general supply items such as

*Due to the wide variety of organizational structures we are broadly defining the words purchasing agent, abbreviated to PA, as the person charged with purchasing and purchasing policy of his company. The person so identified here may be the company president, vice-president, secretary, treasurer, general manager, general superintendent, director of purchases, purchasing agent or superintendent.

fluorescent lamps, cleaning materials, pipe fittings, nuts and bolts, steel, fuel, electrical parts, castings, brooms, conduit, and heavy equipment, according to the PAs.

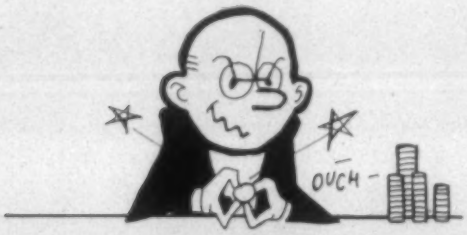
A mill with a centralized purchasing department and a formal testing procedure for general supplies and repair parts says even though sometimes the initial cost may be lower, they "believe in the long run it is better to buy from original manufacturers 90% of the time."

Better Service

One of the PAs points out that money saving is not always the reason for "shopping." He says it is possible to get better service from the vendors by doing so. Another PA says he has "shopping" under consideration and still another says he "sometimes" shopped for supplies and repair parts.

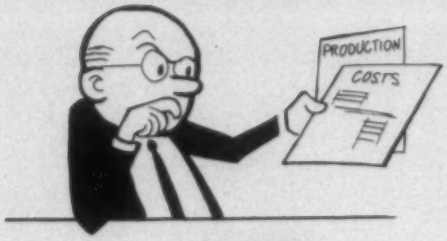
Where do you obtain such parts as cam and crankshaft gears?
Number of P.A.'s replying—48
the loom builder?—79%
an independent machine shop?—48%
your own machine shop?—21%

The Purchasing Agent as viewed by:

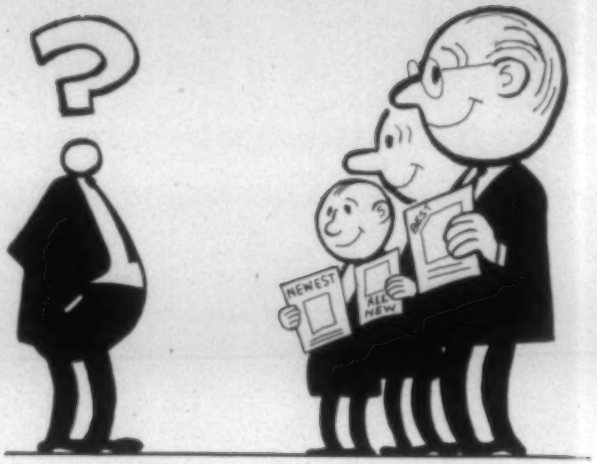


. . . the salesmen

. . . his employer



. . . himself



Who selects the vendor?

Do you find that prices vary widely on such items?
Number of P.A.'s replying—41
Yes—64% No—36%

One of the questions put to the PAs asked if money can be saved by selectively purchasing large, more or less standardized items. The question was, "Where do you obtain such parts as cam and crankshaft gears? The loom builder? An independent machine shop? Your own machine shop?" This was followed by, "Do you find that prices vary widely on such items?" The largest percentage, 79%, say they obtain such items from the loom builder. Interestingly, 36% say they get such parts from a combination of either the loom builder, an independent machine shop and their own machine shop. Some PAs only use their own machine shops as a source for these items in case of emergency. The rest of the answers are divided up among PAs who get these parts from: own machine shop and an independent machine shop; independent machine shops only; own machine shop only; and loom builder and own machine shop.

In a two-to-one majority, PAs who buy from more than one source find prices on such parts vary widely. The trend of the answers shows that by mixing up sources of large and standardized parts the PAs find advantages (either quality, service or price) and prices *do* vary widely on these items.

Who Picks Vendor?

The answers to the question, "In your organization, who decides which vendor to patronize?" indicate wide disagreement but actually this is probably not true. In 46% of the replies, the PAs pick the vendor. The PA and the superintendent co-operate in picking the vendor in 38% of the cases. In 16% of the cases either the superintendent, general manager or manager chooses the vendor. The rest of the answers say the supply room clerk, master mechanic or overseer has this job.

In your organization, who decides which vendor to patronize?
purchasing agent—46%

superintendent—16%
line supervisor—0
fixer—0
Others (please list)
co-operative effort—38%
Number of P.A.'s replying—56

Co-operation between the mill executive and the PA in selection of the vendor is a common occurence. As one PA put it: "There is a spirit of teamwork and co-operation between the purchasing agent and all parties concerned." Others said, "This is a matter of co-operation and co-ordination between the mill and the purchasing agent";

Central Purchasing Departments

A SECTION of our questionnaire was devoted to the operation of central purchasing departments. Twenty of the mills queried have such departments. A group of the questions concerned the number of buyers in the central purchasing department and the approximate amount, in dollars, each buyer purchases; other employees of the purchasing department and their duties; and to whom, or what level of management does the purchasing agent report. Some of the representative answers follow:

A mill purchasing a total of between $15 and $17 million annually has five buyers in its purchasing department. The amount purchased by each buyer varies. The department also has six other employees. Their duties include the physical supervision of the store rooms, responsibility for packaging development, recommendations for new equipment and overall value analysis. The director of purchases reports to the management committee through the executive vice-president.

Another mill says it has a purchasing agent only. There are five other men in the purchasing department who work in three supply rooms in the mill. The department also has a part-time secretary. The duties of the department include scrap sales, invoice approval, value analysis and standardization. The purchasing agent reports to the plant manager and the company president.

A company with three mills in three separate towns says it has one purchasing agent who is assisted by two other employees. The purchasing agent has direct supervision over storekeepers and inventory control in all three plants. He is responsible to the director of purchases of the parent company.

A mill with annual general supply purchases of $300,000 has one buyer in its central purchasing department. He is assisted by one other employee and directs the purchase of about $450,000 worth of goods per year. The duties of the department include office administration and verifying and paying invoices. The purchasing agent reports directly to the company president.

A mill with two buyers reports each buyer purchases approximately $500,000 each year. The department has one other employee. Two receiving departments and the general supply department are under the supervision of central purchasing. The purchasing agent reports to the vice-president in charge of finance and administration.

A 100,000-plus spindle spinning and weaving mill reports it has four buyers whose annual purchases are about $2 million each. The central purchasing department has six other employees. The department has no duties other than purchasing. The purchasing agent reports to top management.

A mill whose annual purchases for capital equipment, general supplies, repair parts and indirect materials approximates $800,000 says it has one purchasing agent. He is assisted by two other employees. The duties of the department are broadly defined as being the purchase of all equipment, machinery, raw materials and supplies. The purchasing agent reports to the controller or president.

A mill with five buyers in its central purchasing department has total annual purchases of about $22 million. This amounts to $4.4 million per buyer. The purchasing department has eight other employees. The director of purchases is in charge of the company's print shop in addition to normal purchasing functions. The department also performs certain accounting operations, value analysis, and disposes of used machinery and scrap. The director of purchases reports to the company's secretary-treasurer.

Inventory Control

A 200,000-plus spindle spinning and weaving mill has two buyers and three employees in its central purchasing department. The department supervises supply room operations and helps maintain inventory control. As several others reported, this purchasing department disposes of scrap and used machinery. The purchasing agent reports to the vice-president, president and chairman of the board.

A mill with $16 million in annual purchases reports it has four buyers. Each buyer purchases about $4 million worth of goods per year. The department has six other employees. The department handles all complaints, and checks and approves payment of all invoices. The purchasing agent reports to top management.

A company whose purchasing department handles traffic, used machinery sales and motor transportation management reports that it has seven buyers including the purchasing agent. The buyers average approximately $3.5 million annually in purchases. There are ten other employees in the department. The purchasing agent reports to the vice-president and general manager.

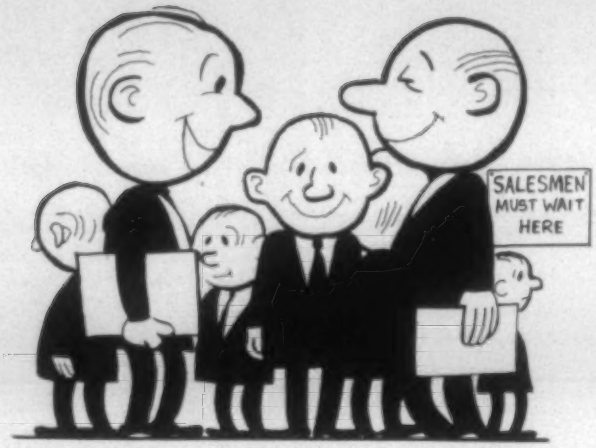
Other questions asked:

(1) Do your buyers specialize in certain classifications of items?

Answer: Yes—70%. No—30%.

(2) Is it the prerogative of the purchasing department to change sources of supply without clearance with the mill?

Answer: Yes—70%. No—30%.



PA's estimate that 44% of sales calls are unnecessary.

and "PA on some, superintendent on some, and general manager on some." Another answer was the PA and the superintendent decide, but "we consider the opinion of the fixers as to their views in regards to quality." Finally, one PA says even though he decides on 95% of the orders (top management on the rest) "a wise purchasing agent always gives consideration to the preference of the user."

Who Gets Discounts?

Of the 59 PAs answering, 46% say they get discounts for maintaining standing orders for parts and equipment. Almost 89% say they get discounts for large volume orders. These large volume orders are sometimes given for staggered delivery. Others give orders for "make and hold for delivery." About 65% of the PAs get discounts for paying cash. A common discount mentioned is 2% off for payment within ten days.

Do you get discounts for:
standing orders?—46%
volume orders?—89%
paying cash?—65%
Number of P.A.'s replying—57

Discounts take many forms. "Potential volume" is cited by one PA as being the reason for getting discounts. Contractural arrangements also figure in getting discounts. Other discounts are reported to be given for total annual volume, payment within 30 days, truck or carload lots, and special items.

It is interesting to note that every one of the PAs get discounts of some sort but all do not get the same ones. For instance, one PA says he gets discounts on paying cash and volume orders but not on standing orders. Yet, another says he gets discounts on standing orders and paying cash but not on volume orders. Another gets discounts for paying cash only.

One PA may have had something when he summed up. "This question is difficult to answer." It is difficult but it is certainly worth following up on. Looking for and getting discounts mean real money savings to the mill. Someone adds a word of caution, "The purchasing agent should have more tools in his chest than a chisel."

Standing Orders

Do you reply on standing orders on items such as shuttles, pickers, picker sticks, etc.?
Number of P.A.'s replying—48
Yes—56% No—44%
If yes, how often do you check these items to see whether or not you are getting the most for your money?
monthly—30%
quarterly—35%
semi-annually—17%
annually—22%
If none of these, when did you last check your standing orders? Answers — continually—2; when a better deal comes along—1.

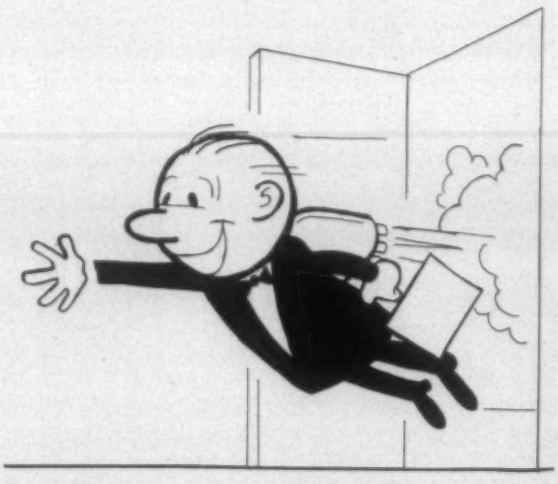
Do mills often rely on standing orders for supply items such as shuttles, pickers, picker sticks, etc.? Over half, 56% to be more exact, of the PAs say they do use standing orders. Asked "how often do you check these items to see whether or not you are getting the most for your money?" 30% say monthly, 35% say quarterly, 17% say semi-annually, and 22% say annually. Two of the PAs report they keep a "continual" check running on this. Another says he checks whenever "a better deal comes along."

Capital Equipment Purchases

The PAs give multiple answers to the question, "Who originates purchase orders for capital equipment?" Top management is the answer in 47 of the questionnaires. In 13 cases the PA originates capital equipment orders. In 14 cases the superintendent does. In most cases these orders originate after joint discussions between mill management, top management and the PA.

Who originates purchase orders for capital equipment?
top management—81%
purchasing agent—22%
superintendent—24%

PET PEEVES:



The salesman who is too high-powered.

overseer—
second hand—
supply room clerk—
Others (please list)—engineering department, general superintendent, manager, purchasing superintendent, each mentioned in one reply.
Number of P.A.'s replying—58

One mill, whose annual capital equipment purchases run $5 million, says, "The origin or requirements for capital equipment are generally arrived at in consultations between mill management and top management. The buying is done by the purchasing agent." Another says capital equipment is bought by the PA at the request of top management. However, another mill, spending about $2 million yearly on capital equipment, says purchase orders are originated by the engineering department. "Usually the plant managers and general manager discuss what is wanted with the purchasing agent," was another answer. One mill's PA says he "places the order and is responsible for getting the equipment."

Repair Part Purchases

Purchase orders for repair parts and general supplies are originated by the supply room clerk in a majority of the answers. This is usually in the form of a supply requisition. Many times, however, this is the duty of the purchasing agent or the department overseer. Sometimes it is one of the superintendents' jobs.

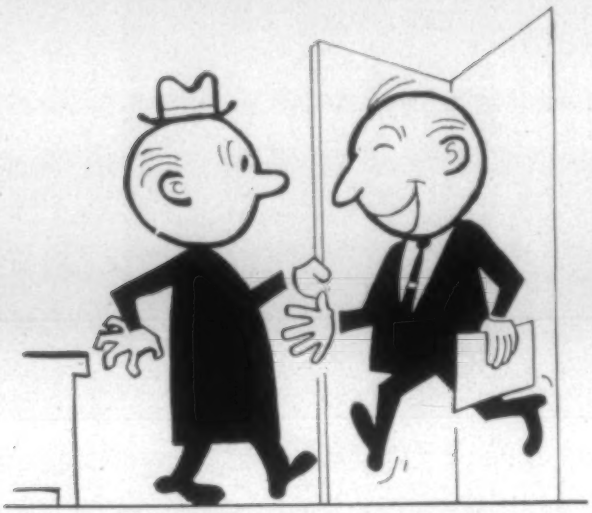
Who originates purchase orders for repair parts and general supplies in your purchasing program?
purchasing agent—48%

PET PEEVES

We reserved part of our questionnaire for the PAs to use in registering any pet peeves they might have. We promised to pass them along, so here goes. PAs are often peeved by the salesman who:

- calls too often and takes up more time than is necessary.
- is too long winded.
- talks too long about things other than the mill business.
- thinks that the PA should buy from him to keep the wolf from his door.
- has no mill experience but tries to tell the PA how to run the mill.
- tries to go over the head of the purchasing department.
- calls a few minutes before lunch or quitting time.
- tries to see mill people after hours.
- applies too much pressure.
- calls "just to say hello."
- checks over the papers on the PA's desk during his call.
- intimates that the PA is a fool for not using his product.
- calls without a definite product or idea to sell.
- doesn't know more about his product than the PA does.
- won't say, "I don't know," when he doesn't.
- doesn't remember that the thing he is trying to sell is "buyer confidence."
- doesn't assume responsibility for seeing order delivered as wanted, not just accepted and forgotten (within reason, of course).
- is too high powered.
- misrepresents the product.
- doesn't know that business is not always the result of gifts or favors.
- cries on the PA's shoulder because he won't buy items that have been replaced by something cheaper or better.
- comes into the office smoking. (He should check to see if smoking is permitted before lighting up.)
- does not have business cards.
- tries back-door selling at the plant. (This type should realize that he is doing himself and his company an injustice by knowingly disobeying the rules. Often, the only time the PA knows this salesman has been in the plant is when he happens to see him coming out.)
- is overly critical of a competitive product.
- wants to see the superintendent, the overseers and the supply room clerk.
- has too many items to discuss.
- enters the PA's office, greeting him like a fraternity brother, without giving his name or firm and gives the PA no clue in his conversation as to his identity—all this, of course, after by-passing both the office receptionist and the PA's secretary. (It happens!)
- insists on giving a long sales talk even after being advised that the PA does not need the product.
- repeats his sales pitch over and over.
- feels that he has to talk about one of the PA's pet hobbies before getting down to business.
- fails to make delivery when promised.
- fails to follow routing instructions.
- walks in the door using the magic words, "I can save you money," when he has no earthly idea what product the PA is using and what it costs.
- comes through town and stops by a phone booth and tries to handle his call in that manner rather than through a personal interview. (The PA considers this a cheap attempt to get in ahead of other salesmen who may be waiting in the lobby.)
- is not qualified and cannot give the PA a price without calling the home office.
- fails to let the PA know when a shipment is delayed beyond a promised date.
- tries to call at the PA's home.

PET PEEVES:



The salesman who calls a few minutes before quitting time.

superintendent—22%
overseer—40%
second hand—5%
supply room clerk—52%
Number of P.A.'s replying—58

Generally speaking, the person in charge of keeping the supply room perpetual inventory submits repair parts supply requisitions to the purchasing agent. The purchase order is then given to the vendor. When involved in an overhauling program, the mill usually relies on the overseer to make out supply orders or requisitions. These are pegged to the needs of the program.

Value Analysis

Formal testing procedures for general supplies and repair parts are used by 29% of the PAs. The same percentage say they are using a formal value analysis program for comparing one vendor's product with another's. The rapidly growing use of value analysis in the textile industry makes the question an interesting one. These programs are designed to evaluate the usefulness of a piece of equipment or supply part in comparison to a competitive unit.

Do you have a formal testing procedure for general supplies and repair parts?
Number of P.A.'s replying—58
Yes—29% No—71%

The process involves a lot more than simply giving a dozen new pickers to a loomfixer to try for "a sample." Much thought must go into the organization and development of testing procedures. Value analysis has shown, *positively* that it can result in substantial savings.

Do you have a formal value analysis program for comparing one vendor's product with another?
Number of P.A.'s replying—58
Yes—29% No—71%

Value analysis is defined as meaning "to establish valu by comparing the function (or service) performed by an part at the lowest obtainable cost." It includes the pro motion of ideas which build up job performance and/o improve the quality of the product. Creative imagination must be used in the study of every element of cost in ever part, material or service. Value analysis takes into con sideration: (1) alternate materials; (2) elimination o simplification; (3) use of facilities of specialized suppliers (4) possibilities for use of standards; (5) engineering re design; and (6) re-evaluation of operating practices.

Value analysis programs are usually initiated by th PA. To be effective, the program must become an activ interest of top management and the mill's supervisory staff The most effective programs also include the active par ticipation of the vendor.

Perpetual Inventory

"Does your mill keep a perpetual inventory in its stock room?" Over 81% of the PAs answer "yes." Stock rooms contain from 2,500 items in a 25,000-spindle spinning mill to some 50,000 in a group of integrated mills. In several cases, mills with centralized purchasing have stock room clerks under the supervision of the purchasing department.

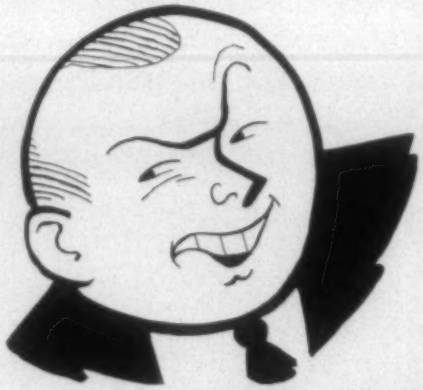
Does your stock room maintain a perpetual inventory?
Number of P.A.'s replying—58
Yes—81% No—15% Yes, on some items—3%

PA-Salesmen Relations

A group of the questions asked were aimed at finding out how the mills feel about salesmen and sales calls. As noted, none of the PAs restrict sales calls to "by appointment only." However, about 11% do restrict sales calls to prescribed hours and/or days. While PAs think 44% of all sales calls are unnecessary, approximately 21% do not object to "plant social calls" from salesmen who call regularly.

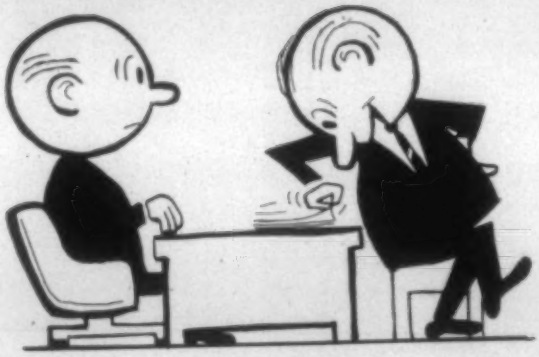
Do you see salesmen by appointment only?
Yes— No—100%
Number of P.A.'s replying—58

PET PEEVES:



The "I can save you money" salesman.

PET PEEVES:



The salesman who examines the papers on the PA's desk during his call.

Are sales calls restricted to prescribed hours and/or days?
Number of P.A.'s replying—57
Yes—11% No—89%

Do salesmen call on you directly or on those members of your organization directly concerned with products being offered?
call on me directly—72%
on members concerned—14%
both—14%
Number of P.A.'s replying—57

Does your purchasing program permit salesmen to go directly into the mill?
Number of P.A.'s replying—57
Yes—18% No—82%

Does the above apply to all salesmen, including both those who call on you regularly and those with whom you seldom or never do business?
Number of P.A.'s replying—56
Yes—80% No—20%

Does the above apply to technical representatives in a position to offer some technical service or information as well as salesmen making no more than a "social call?"
Number of P.A.'s replying—55
Yes—60% No—40%

Do you object to plant social calls from those salesmen who call on you regularly?
Number of P.A.'s replying—57
Yes—79% No—21%

"Do salesmen call on you directly or on those members of your organization directly concerned with products being offered?" we asked. In 72% of the answers PAs say that salesmen "call on me directly." About 14% of the answers say that salesmen call on both the PA and members of the organization concerned with the product.

The big majority, 82%, of PAs say their purchasing programs do not permit salesmen to go directly to the mill. Many of the answers show that salesmen must first clear with the purchasing department. When approval is given they are admitted to the mill.

Some salesmen, however, do have direct access to the mill. This is seen from the answers to "Does the above apply to all salesmen, including both those who call on you regularly and those with whom you seldom or never do business?" Over 80% of the PAs answered "yes," meaning that 20% allow certain salesmen to have access to the mill.

Salesman access to the mill is proportional to the probable value of his visit. This is shown by the higher percentage, over 40%, of technical representatives who can offer some technical service or information that are admitted to the mill.

The conclusion drawn from the answers is: if a salesman has really got something to offer a textile mill, he has no trouble gaining entrance to present his wares. The high percentage of calls the PAs say are "unnecessary" shows a need for vendors to re-evaluate their sales effort with a critical eye on sales methods and frequency of mill visits.

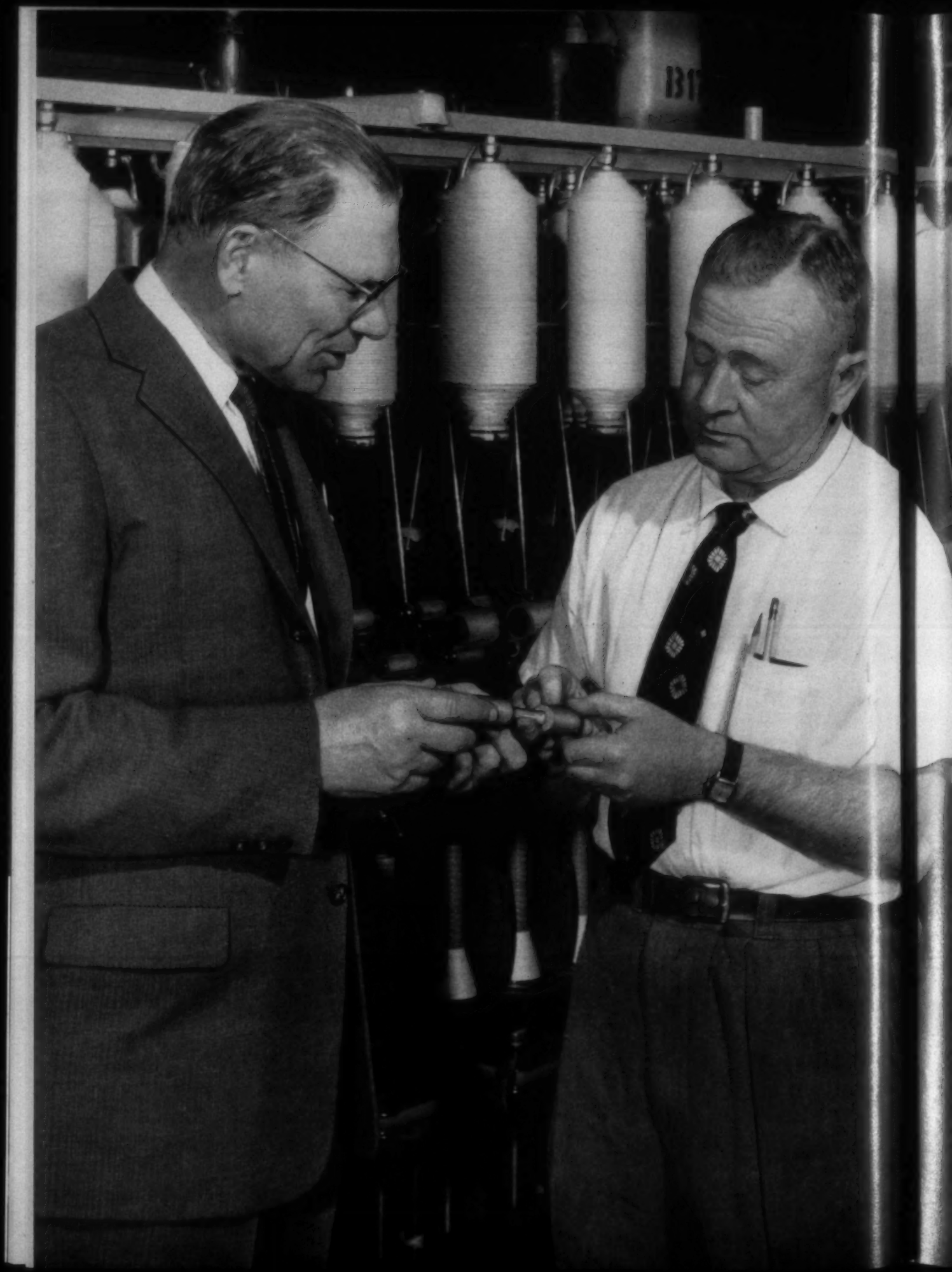
New Product Information

We are happy to report that the position of trade journals as a source of new product information is very high. We asked PAs to rate "in order of their importance as your sources of information on new products, salesmen, manufacturer's literature, trade journals, trade meetings, trade shows, others." Only salesmen are rated higher than trade journals as sources of new product information. Manufacturer's literature, trade shows and trade meetings placed third, fourth and fifth, respectively. Visits to suppliers and visits to other mills were mentioned as other sources of information on new products.

Please rate in the order of their impotance your sources of infomation on new products.
salesmen—161
trade journals—131
manufacturer's literature—121
trade shows—89
trade meetings—68
Number of P.A.'s giving complete replies—38
(Point total based on 5 points for first place, 4 points for second place, etc.)

"Whose responsibility is it to keep abreast of new product information?" we asked. The answers don't show a clear cut line of responsibility in this matter. Most of the PAs say this job is given to more than one person. The purchasing department is mentioned in 69% of the answers. The superintendent and individual supervisors are mentioned in 62% and 26%, respectively. A majority of the answers say that two of the three or all three have this responsibility. Several PAs say their mill's technical superintendents do this job.

Whose responsibility is it to keep abreast of new product information?
purchasing department—69%
superintendent—62%
individual supervisors—26%
technical superintendent—3%
combination of these—19%
Number of P.A.'s replying—58



W. L. Caviness, Overseer of Spinning at Cone Mills Corporation White Oak Plant, Greensboro, N. C., discusses roll covering problem with Armstrong representative Harold H. Jordan.

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Who's Ahead In Nonwovens?

By ELSIE S. BURESH

THE art and engineering of nonwoven fabric production which has been developing and diversifying in the U. S. in a way which defies generalizations has, at the same time, been capturing the imagination and initiative of the textile industry around the world.

Although the technological progress in nonwovens in this country has been responsible for many of the foreign installations now in use, the "quality" nonwoven was first introduced in the U. S. by a German firm, Carl Freudenberg, K.G.A.A., of Weinheim-Bergstr, when Pellon Corp. of Lowell, Mass., was put into operation soon after World War II. Freudenberg had pioneered their process between the two wars when Germany was making an all out effort to build up her economy. At that time the average U. S. consumer, if not textile manufacturer, would probably have called his product a "synthetic" or "ersatz" fabric which then meant to all Americans inferior or substitute.

As nonwovens have progressed both here and abroad Freudenberg of West Germany has been a leader in this quality product. Kendall Mills and Chicopee Mills antedate Pellon here in the production of the "throw-away" nonwovens.

The day seems to be approaching when it will no longer be necessary to define the term "nonwoven" in a textile publication. In case there is some question, the term as used here, means specifically those products made by the combination of textile fibers with a bonding agent to form a cloth or batting. The varieties range from battings to paper (at least very near), from fabrics of higher cost than average woven to very low cost disposables—a fact that makes generalizations on statistics almost impossible. However, most nonwovens can be classified either a quality product or a throw-away, both in this country and abroad.

Purchase U. S. Machinery

"The interest in nonwovens in almost all countries that have sizable textile manufacturing is enormous," according to Dr. Karl Lendt, president of Lendt & Co., New York City, export agent for machinery manufacturers who supply equipment specially designed for the nonwoven trade.

Nonwovens are attracting the attention and interest of textile men all over the world. Production of nonwovens is far advanced in many foreign countries and others are taking a keen interest in the field. This review indicates the degree of progress being made in various parts of the world.

Among Lendt's clients are Curlator Corp., East Rochester, N. Y., making Rando Feeders and Rando Webbers; Rodney Hunt Machine Co., Orange, Mass., makers of saturation and winding equipment; Ross Engineering, and James Hunter Machine Co. Firms in Italy, England, France, Mexico, Japan and South Africa have bought machinery through Lendt.

It is Dr. Lendt's opinion that Great Britain has made great strides in techniques for quality nonwoven fabrics and is ahead of the U. S. in her developments. Of the installations now producing in Britain two are directly connected with synthetic fiber producers and operate as subsidiaries. Two others were initiated from outside Great Britain, one operating under license from Germany and one from the U. S.

The list of British firms includes:

Bonded Fiber Fabrics Ltd., Bridgewater
Southalls Ltd., Birmingham
Robert Pickles Ltd., Buenley, Lancashire
Turner Bros. Asbestos Ltd., Hindley Green Wigan, Lancashire
Rubber Technical Development Ltd., Welwyn Garden City
Smith & Nephew Ltd., Welwyn Garden City

Lantor

One of the fastest developing British firms is Lantor Ltd., which was organized by Tootal Broadhurst Lee Ltd. of Manchester in co-operation with West Point (Ga.) Mfg. Co.'s Lantuck Division, and has had the benefit of West Point's production and technical methods and experience. There are also several smaller firms specializing in products for automotive, shoe trade, backings for leatherettes, principally producing for use in their own products.

Besides Freudenberg in Germany several others have started in special fields. One has made a specialty of chamois type cloth and leather substitutes. There are varying types in Munich, Essen and Wuppertal.

France has been limited by the problems of currency and changing of regulations with the frequent government changes. Anything—meaning fiber, binders and machinery—which can be obtained in France must be purchased at home. The problem of defining these new materials and machinery in such a way as to secure licensing from the government has been a hazard.

In spite of these hazards, French textile men have been hard at work on several products. One large firm, Intissel S.A. of Roubaix is becoming established in quality products, principally interfacings. Part of its machinery came from the U. S. Coisne and Lambert, cotton spinners and weavers of Armentieres, is initiating production this Spring of a number of products. At least one other has definite plans for late 1959.

One Belgian firm recently went into production for the surgical and personal fields.

Scheduled to begin production in June at Veenendaal, Holland, is Hollantor, a new organization under the aegis of six Dutch textile manufacturers in a joint undertaking with Lantor for the production of quality nonwovens. The new, fully automatic plant will use the Lantuck process, patented by West Point Mfg. Co.

In Italy Contonificio Bustese Manifattya has been in production several years making high quality products for Italy's own apparel industry. Another smaller firm produces disposables for surgical use and waddings.

Japanese Manufacturers

At least three firms are producing nonwovens in Japan, according to Dr. Lendt. It is understood that some outstanding development work in outerwear fabrics is under way. Small experimental samples of these fabrics have been seen in this country by technical personnel of several suppliers. The growth of synthetic fiber production in Japan, principally through licensing arrangements with U. S. chemical firms, appears to be stimulating the activities in nonwovens.

All of the special machinery for nonwovens which has been imported to Japan has come from the U. S. The oriental technical ability, ingenuity and perseverance in product development may very well make a worthwhile contribution to the nonwoven art.

A great deal of secrecy abroad, as well as in the U. S., surrounds activity in the nonwoven field. Although Dr. Lendt could not in fairness to himself and his clients list the names of firms he knows to be in the trade in every country, he summarized: "Plants are soon to go into Australia and the Union of South Africa. One firm in India is making definite plans following completion of technical studies of methods and materials in use here.

"In this hemisphere one plant has been in operation several years in Mexico. Brazil, Argentina and Chile have planned large developments and their plans await the adjustment of the chaotic currency situation. There is a genuine interest and we expect the installations to move along with the progress in related fields.

"Although there have been inquiries, there are no nonwovens being made in Scandinavia. Just what tthe explanation may be we are not certain. There has been a long standing depressed financial situation in the textile industry there. In many ways the Scandinavians are not by nature the "pioneers" which many others are. The promotion of the relaxation of trade barriers among European nations without comparable reciprocity by the U. S. has not encouraged small new industries in Europe."

This article will not cover the situation in Canada because it is generally the same as in the U. S, with Canadian firms and Canadian subsidiaries active in almost all types of nonwoven fabrics. Canadian technical organizations and publications have devoted time and space to the subject as long as has been done in this country.

Influential Factors

To go into the factors influencing any one country would involve covering capital available, raw materials, technical background of average mill, and "personality" of the political and industrial leaders of that nation. There is, however, one essential ingredient which is absolutely necessary and that is an economical source of binders suitable for whatever end products are feasible for that country's mar-

kets. This is dependent on the state of the chemical industry in that area and/or nearby sources without trade barriers. Generally speaking an economical source of synthetic fibers is also essential although it is fair to assume that nonwovens using principally natural fibers may eventually be successfully produced. Versatile binders will always be necessary.

J. L. Truslow, vice-president in charge of foreign operations for West Point Mfg. Co., observed that "There is almost a mania for getting into nonwovens in Europe just now. I use the word 'mania' because most manufacturers do not know what is involved. When they actually study the investment and development and marketing to be done, many lose their interest."

He feels there is certainly a place for nonwovens in Europe, as his firm is expressing in its co-operative projects in England and Holland (as noted above) but at the same time the field is limited. "There may be a place for a manufacturer of disposable nonwovens," he said, "but I do not think that the field is large enough to warrant the manufacture of special machinery in Europe by European firms." Disposables now being made go chiefly into surgical and pharmaceutical products.

Fear Motivates

The factor of fear which the textile industtry has had in the U. S. has likewise been prevalent in foreign textile establishments. Among those unfamiliar with nonwovens there is the fear of competition from a less expensive fabric. They can see idle weaving sheds and looms gathering dust. Others hear of the problems faced by personnel in learning a whole new trade—requirements for skilled engineers and chemists to teach and train production men. The whole idea of new products for new uses and fabrics engineered to an already existing need not now met by a woven fabric or any textile product is a concept which takes a pioneer's comprehension. Research and development by firms long established in conventional textile manufacturing is as yet comparatively new.

Fear, on the other hand, motivates interest in nonwovens, that is, fear of being left behind in a trend which might replace wovens or knits for certain uses.

The range of uses for nonwovens is as varied abroad as it is in this country. Although lists of uses would vary somewhat from one country to another the total includes the same wide range of industrial and apparel applications found here.

This discussion has not been aimed at providing technical information relative to specific operations abroad. Any such resume could not be completely reliable because of the secrecy applied for competitive reasons. This applies to methods, fibers or binders used and even the products themselves when they appear on the market only as a component part. Market surveys abroad, as in the U. S., often fail to cover the entire field because the inexperienced surveyor uses methods applicable to conventional textiles—often completely misses certain fabrics or products as at all related to nonwovens.

Whether for good or ill, and the opinions are many and expressed with conviction, nonwoven fabrics are inspiring the ingenuity of textile technologists, widespread in interets and geography. Whatever the differences it can safely be concluded that any product, made by any method, which increases the world consumption of textile fibers is healthy for the textile industry.

WHERE to check quality

By JAMES WHEELER*

THE term quality control point means a particular phase of the processing where the quality of the stock can be measured; a decision can be made as to how satisfactory the quality is; and corrective action can be taken if necessary. To accomplish this a definite program should be established.

To begin this program almost everyone will agree that quality of the raw material will have to be controlled if we are to produce an acceptable product. In our case the raw material is cotton. Various properties are fineness, length, strength, maturity, percent foreign matter, percent uniformity of staple length, cavitoma and modulus. To successfully control the end product we first need to run elimination tests to determine what properties affect our cloth the most. Fiber fineness gives more information with the least effort than any other single test. We have found that to know the fineness we can also know something of the maturity.

Our next step is to determine how much testing should be done. It is certainly not practical to test each bale for everything it can be tested for. Therefore, a survey is conducted to see what fineness affects. In our product, which is denim, the fineness affects the neps in the cloth in the filling only. It affects the shade of yarn in the filling only. It affects the general appearance of the cloth from the filling only. It affects the dyeing shade in the filling especially in pastels.

Affects Warp

The main way fineness affects the warp is in the dyeing. However, since we have an indigo shade in denim it takes extremely fine cotton to show up in dyeing. Therefore, our most critical point is the fineness of the cotton to be used in filling. Since the test can be easily made we check every bale of cotton to be used in filling for fineness and check the warp cotton only on a random basis. The shippers check each bale of our cotton for fineness before shipping as our range of Micronaire requirements are in the contract.

A similar survey was made on the cotton properties and an analysis made of the results. From these findings it was decided that we could test in the laboratory only on a random basis for length, strength, percent uniformity and percent foreign matter.

Testing for maturity, cavitoma and modulus (taken from readings on Spinlab's Speedar instrument) have shown there are times when we need to test 100% and there are times when we can control the quality with random testing. For example, some months ago, all of a sudden, we had poor running work in the mill. Our cotton had met all the tests we had checked it for except our random test showed some cavitomic bales. We then began testing 100% for cavitoma and found 40% of the cotton going in at that time to have cavitoma. We immediately found out where this came from and were able to isolate approximately 800 bales from this locality, most of which showed to be cavitomic. We disposed of this cotton and then continued to test 100% for about two months and found only a very few bales that needed replacing. After this period we went back to our random checking.

Modulus Valuable

There are times when the modulus of the cotton is good information to have in controlling the raw stock dyeing. The Speedar gives both the fineness and the modulus of cotton. The modulus means the springability or resistance to compression. When 1,000 pounds of cotton is placed in a dye pot if the modulus is around 2.0 to 2.5 the cotton remains porous under compression. The dye can penetrate throughout the pot. If the modulus is around 1.5 the cotton will pack tighter and the dye might not be able to penetrate throughout the batch, resulting in uneven shades. Lower modulus is usually found in finer cotton. It is more fluffy and has low resistance to compression. It is hard to dye. If the finer cotton has a higher modulus it is possible to dye it a more even shade.

With this type fiber testing program we now have our raw material under control. We are putting into the mill

Based on years of actual mill experience, this article tells what a quality control program is supposed to do, how it is supposed to do it, and where quality control should be done. This comprehensive description of quality control activities was delivered before the Spring meeting of the Textile Quality Control Association at the North Carolina State College School of Textiles, March 26-27.

*Canton Cotton Mills, Canton, Ga.

the type fibers which, if processed properly, should make good cloth. Our next control point is to see that this cotton is properly cleaned without too much loss of spinnable fiber. Therefore, periodic waste tests are conducted to see how much waste is being removed and how much of this waste is fiber. This is generally accomplished by sampling the different types of waste under the beaters from the cleaning through the pickers and testing it in the Shirley Analyzer. An easy way we've found for making the picker waste test is to place large sheets of paper under each beater and weight them down at the corners. Then, run three laps and record the weight of each lap. Remove the papers with the waste and weigh the total waste, run all the waste through the Shirley Analyzer and calculate the waste made per 100 pounds cotton through the pickers and the percent trash and percent fibers. This information can be used to see if a good job of cleaning is being done and what type beaters running at what speeds, etc., do the best job.

Lap Quality

The quality of laps is very important in our testing program. These are usually tested on a Saco Lowell lap meter. This information gives the evenness of the lap within each yard and between yards and will show up the pickers which need mechanical adjustments. We cannot expect to have uniform sliver and yarn if our laps are uneven. The evenness of the laps can be calculated on coefficient of variation and also the percent within the limits. The ounces-per-yard weight is also information which the lap meter test makes available. Standards can be set up and the quality of laps controlled.

The evenness of card sliver and the number of neps are two important factors. Evenness can be checked on either a Brush or Uster tester. The Uster Spectrograph can be of great value in pointing out the defective cards which cause irregular sliver. Standards can be set up for percent uniformity. Test information can be used to bring all cards within the standards.

The nep count of the cards can be accomplished in a number of ways. One good way is to sample each card with a long board which holds three smaller boards. After sampling the web, cover each board with a template, having ten random holes, thus giving a total of 30 square inches sampled. Enough boards can be made and put into one box so that the tester can gather samples from approximately 50 cards at one time. Standards can be established correlating the neps per 100 square inches of card web and the neps per 100 square inches of cloth. When the neps per 100 square inches of card web exceed a given number the neps in the cloth can be expected to exceed its standards.

The next control point is drawing. Size of sliver, uniformity of sliver and the tensile strength of the fiber (Pressley) are easily checked and controlled at drawing. By using the Spectrograph, the evenness of drawing sliver can be improved. Once each delivery is producing uniform sliver, control testing can keep the uniformity within the limits.

Tensile Strength

Drawing also gives a good control point for tensile strength and fineness of fiber. After the cotton has been processed to this point most of the foreign matter and a great deal of the short fiber has been removed, leaving only the fiber which will be spun into yarn. By sampling on a routine basis, strength and fineness information is available. If these tests are within our standards, the supervisors have assurance that the fibers are all right and should spin good yarn.

The roving is the next control point. Roving can be tested for size and uniformity. One approach to the uniformity control is to sample four bobbins at random from a frame. Sample as many frames each day as your over-all program will permit but have a definite program so that all frames are covered as often as possible. Another approach to better controlling the uniformity of the roving is to sample each bobbin on an entire frame. Completely analyze this information, especially as to the type defects which are predominant, then check other frames for these type defects.

The next control point is spinning. Yarn can be tested for many things. Among these are yarn number, breaking strength, uniformity, appearance and twist. If the cotton fed into the mill meets our standards and is properly cleaned and processed up through good uniformity roving, the big job in the spinning control program is uniformity work. A definite program is needed if much headway is made on yarn uniformity due to the great number of spindles involved. A routine testing schedule can be done by sampling six or eight bobbins from several frames each day and a record kept so that all frames will be spot checked over a reasonable period of time. Another good way is to test each bobbin from a frame and make a thorough study of the results, noting particularly the defects that are predominant. This information can be used in checking all other frames for the predominant defects. This information can further be used in better understanding the results of six or eight bobbins tested from a frame.

Count-Strength Product

The actual yarn number and breaking strength are good information to have in knowing what quality of yarn is being produced and to check the control program up to this point. The count-strength product is also a good figure that is easily understood. Standards can be set up for count-strength product so everyone will know whether or not the strength is within tolerance.

The next control point relates to the dye—its color fastness to light and to laundering. With the use of vat dye colors this type of testing is a must and strict control must be exercised since most vat dyed goods are sold with the color fastness claim printed on the label of the garment.

Another control point is the slashed yarn. The moisture content and the size content are both important for good weaving. Again standards are established and control tests conducted to see that we maintain these standards.

If all control points are within the standards from the cotton to the weave room, good uniform yarn which has tensile strength and is properly conditioned and sized is delivered. Good weaving should result, provided the looms are right mechanically. The main quality controlling needed at weaving is on defects in the cloth which happen at the loom. An adequate training program for the weave room personnel, along with a good follow-up on the type defects which can be kept from recurring can assist in the quality of goods woven.

During finishing and sanforizing several items of quality

eed to be controlled. Among these are width, hand, shrinkge and defects caused by finishing and sanforizing. A efinite sampling program is needed on each item to be sted.

eady For Shipment

The cloth is now ready for shipment to the customer. Various customers have certain test requirements and the rend is definitely more and more toward furnishing certain est results along with the shipments. One customer is interested more in breaking strength, another in abrasion, another in weight after laundering, etc. The customer wants to see the test results. All government orders are sold on strict specifications and the test results are furnished with the cloth. Everyone seems to be more quality minded and better informed on various tests which can be made on cloth. All of this has brought about improvements in goods and more satisfied customers in that they are getting just the types of fabric which they desire.

The tests which can be conducted on cloth are numerous. To name a few, breaking strength, abrasion, weight, ends, picks, non-fibrous content, shrinkage, width, bursting strength, tear strength, color fastness, nep counts and moisture content. The amount of testing on each of these is determined by their importance and of how easy they are to keep under control. Some require daily tests, others not as often. Standards are set up and after a representative number of samples have been obtained, the proper controls are established.

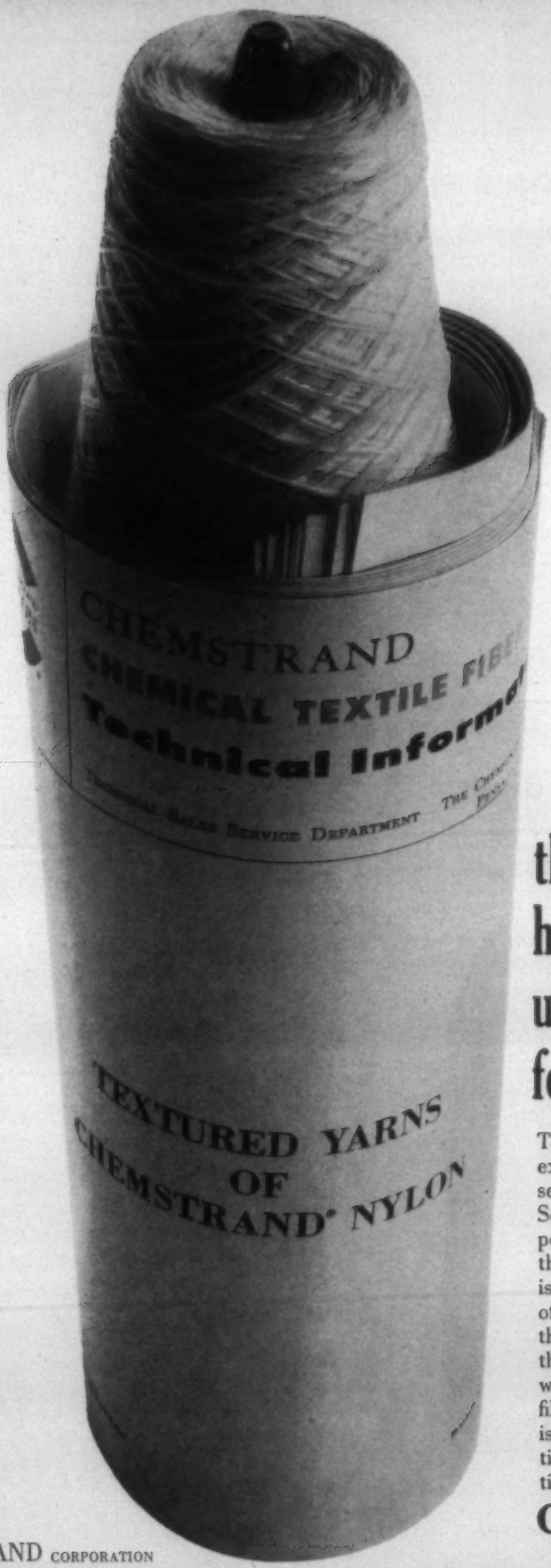
Follow-Up

We have covered briefly some of the main control points in processing. We have discussed something of the sampling program and results. There are a few remarks concerning a control program that should be made at this time. Any control program needs a good *follow-up*. The information has to be used by all involved if we are to maintain our quality stndards. After tests are made and items of quality are found to be out of line, the necessary adjustments need to be made and follow-up tests conducted.

Sufficient training of all supervisors is necessary so they can interpret the test results and take corrective action if necessary. The supervisors need to have a concern for quality and pride in producing a quality product. Everyone needs to work together as a team to insure good quality. It is also well to impress upon all supervisors the over-all program, not just the part he is concerned with in his own department. For example, the spinning personnel need to understand that good yarn means good cloth. The picker room people need to know that good uniform lap will help make good uniform sliver.

It is our opinion that a good quality program needs to be flexible so that importance at all times can be given to the most needed items. Therefore, one does not have to stick to a set number of samples. Any laboratory has to operate with as few personnel as possible, yet cover as much work as possible to be really effective. Therefore, all personnel should be able to make all tests. By having well trained laboratory personnel and a flexible testing program emphasis can be put where needed.

A good quality control program is no easy task but it does give an inward satisfaction of being a part in producing a better quality fabric.



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a new science
born of
bad ginning practices

How To Buy Cotton

By O. K. NIVENS*

IN the last quarter of the century we have gone through a period of highly accelerated changes. These changes have been brought about because of the necessity of doing things more quickly, efficiently and economically. Some of the changes were due to a speeded up economy because of wars and threats of wars. Others were due to man's desire and ability to invent better equipment and introduce new techniques and methods. Also, we have been dealing with a fickle clientele that demands new designs, patterns and fashions.

It has become increasingly clear to us in Avondale's cotton department that the standards we used in judging cotton ten years ago won't work today. This is due in part to a highly mechanized farm program and ginning program. Some of the characteristics of cotton that we had to contend with in spinning have been improved while other of the characteristics have been downgraded. Also, we found instead of spinning cotton out of one crop year only, with the problems involved, it was necessary to buy cotton out of several crops which multiplied our difficulties many times.

Changing Economy

Our whole philosophy and attitude of cotton buying had to be changed to meet the challenge of the changing economy. As cotton buyers and cotton classers, we had to accept the fact that we were not infallible and that we needed an aid to help us select cotton for our mills. We needed to know more about the cotton we were buying and we needed to know this before we owned the cotton. It was found through experience, and sometimes very costly experience, that information over and above that of grade and staple was necessary.

From the very beginning we made a practice of evaluating any new equipment put on the market related to fiber testing. We also took advantage of the Cotton Fiber Testing School at Clemson College, and from time to time, sent some of our personnel to participate in the program sponsored by the American Cotton Manufacturers Institute at the school. Over a period of time we built up a well equipped fiber testing laboratory staffed with interested and competent technicians.

We found that our laboratory people were willing and anxious to team up with us in tackling the many problems we were facing in purchasing cotton. So as a team we began to take a more progressive attitude in our testing and cotton buying departments. In order to do this there were many things we needed to know. First, and most important, was to analyze the type of cotton going into each one of our mixes at the different mills to determine, if possible, whether or not we were using the right cotton for the different mixes. As you can well imagine, we found this to be time consuming, often discouraging, and in some cases rewarding. It was also important for us to know the cotton best suited for any given mix as far as grade, staple and the other characteristics of the cotton were concerned.

Cotton Cost Reducd

At one of our mills where we were running 500 bales of coton weekly we were able to reduce the price of our mix 3½ cents per pound in two years' time. We did this by trial lot buying, testing and proper blending in a new and well equipped opening room. After a thorough study of our original mix we were able to sacrifice a reasonable amount of breaking strength and color but still maintained our cleanliness and miconaire range. This put us in a range of cotton where the differences were very wide in comparison to straight grades and allowed us a handsome profit as you can very well see.

One of our small yarn mills has a waste mix consisting of comber noils. From time to time we experienced very bad running conditions even after being as careful as we possibly could in selecting the comber. We started a program whereby we would make a comber noil fiber array and reject any types even after they had been approved by our classing department if at least 60% of fiber by weight did not measure one-half inch or longer. This tended to even out the running conditions of the mill and we have just about eliminated the peaks and valleys were experiencing. It is rather difficult to measure a program like this in terms of money, but when you take into consideration a good running operaton as compared with a mill frequently running badly, it must be a considerable saving.

In one of our mills producing yarn for the knitting trade, with a part of their production being directed to-

*Manager, Cotton Department, Avondale Mills, Sylacauga, Ala.

Why have the methods used in cotton buying changed so drastically in recent years? How can co-operation between cotton buyers and laboratory men be of best use to the mill's over-all cotton program? This paper, delivered at the American Cotton Manufacturers Institute Open House, gives straight answers to cotton buying problems.

wards dyers, we found it necessary to blend this cotton for grade and staple, micronaire and measure the color under a long wave ultraviolet light for differences in fluorescence in order to eliminate streaks after dyeing that we couldn't possibly see with our natural eyes on the cone. We concluded that where finished products are to be dyed, results can be controlled with blends of cotton from different territories if fineness and fluorescence, as observed with a black light, are controlled.

Dye Streaks Eliminated

It is needless for me to suggest that it would be possible for us to test all of the cotton we received at our mills. So our buying program is being directed more and more in the direction of shippers and merchants who can furnish us this information. We feel that it should be a part of their service as it is ours to furnish our customers with any information pertaining to the quality of our cloth and yarn. With this information on hand, upon the arrival of the cotton, it gives us time to plan our blends and leaves our laboratory technicians free to spot check all shipments and to devote a great part of their time to quality control.

In the preface of Dr. A. B. Cox's book, *Demand, Supply, Merchandising Cotton,* he states: "Cotton has a wide range of distinctive, measurable qualities. There is, as a result, a great number of possible combinations of these qualities in making up even-running lots of cotton required by mills in manufacturing different kinds and qualities of fabrics. Cotton merchants have an unusual opportunity to create values by rendering superior service in their job of selecting cotton for mill use. The future of the cotton industry is dependent in no small degree on the development of these potential values." It is our job, working with our laboratory and the cotton merchants, too, to find these combinations of qualities that will best fit our over-all program.

New uses are constantly being found for our laboratory equipment and we feel that the cost of this department is small when compared with the service rendered. The possibilities and the challenge are always there to explore, examine and test with the thought in mind of finding a good cotton, priced reasonably, that we know before buying will run well and make a good finished product. If, in our testing department we can prevent the possibility of our mills having to spin mistakes which might have been avoided our efforts will be well worthwhile.

Endless Program

The program that we are trying to carry on is endless. Things that work for us this year will probably be of no value next year except for experiences gained. The very nature of the fiber that we are working with which is susceptible to the whims of nature and that of man bears this out. So long as cotton continues to arrive at our mill damaged by malpractice of ginning, so long as excessive use of heat and lint cleaning equipment continues to lower the quality of cotton and produces poor running conditions in our mills the testing department will have a place in our buying program.

The key to the whole program, it seems to me, is to be flexible enough to take advantage of buying opportunities when and wherever they occur by working with our laboratory and the people from whom we purchase our cotton. It is my good pleasure to be entrusted to buy the cotton for our mills and a quarter cent per pound means much more to me than micronaire units, thousands of pounds per square inch and curvilinear scale. However, never have I doubted the importance of the part played in our buying program by our testing department.

This paper is not intended to cast any reflection on any cotton buyer or cotton classer. I can't think of any group of people who are more dedicated to a profession than they are. The natural ability displayed by them in selecting good character cotton to run in our mills is uncanny. They have proved themselves over the years. What I am trying to say is that our laboratory with its personnel and equipment, working with our cotton department in selecting cotton for our mills complement each other.

Best Efforts

No piece of equipment is an end within itself. The end results will be determined to a large degree by the approach and attitudes of the personnel buying cotton, classing cotton and selling cotton. To spin the cotton produced in a highly competitive market will take the best efforts of all groups concerned.

To summarize what I have tried to say is simply this: (1) maintain a good working relationship within your own organization between buying and testing; (2) carry this one step further and include your suppliers; (3) get all the fiber information possible before buying; (4) evaluate your mixes as often as possible in relationship to cotton being offered on the market for any price advantage; (5) use a positive approach to cope with the many problems facing cotton manufacturers.

Georgia Textile Operating Executives

discuss: opening, cleaning, picking, drawing and spinning

What are the advantages found by mills in using the S.R.R.L. opener-cleaner? high compression rolls on pickers? high speed drawing frames? anti-friction steel rolls in spinning? corrugated synthetic clearers? and nylon spinning tapes? How are cleaning lines arranged when using new cleaning machines? How do mills with vacuum ends-down collectors control scavenger waste? Answers to these important questions were given at the Spring Meeting of the Textile Operating Executives of Georgia., held in Atlanta on the Georgia Tech campus, April 25.

Question No. 1—What are the advantages found in using the new type S.R.R.L. opener-cleaner?

Mill I: The S.R.R.L. opener-cleaner does an excellent job of blending and cleaning. We have found that it removes a negligible amount of spinnable fiber. Our unit handles 2,775 pounds per hour. It is placed in our line between the blending feeders and the Buckley beaters. We run osnaburg mix or low grade cotton and strips.

Mill O: Our S.R.R.L. opener-cleaner opens and blends the stock better. We find no spinnable fiber in the waste. The use of the unit has no effect on our yarn breaking strength and nep count. We run it at a maximum of 1,200 pounds per hour. It is placed in the line at the end of the feed table. We run $\frac{15}{16}$-inch cotton.

Mill P: The S.R.R.L. opener does a thorough job in blending the fibers and opens the stock into a fluffy condition that permits the subsequent processes to remove foreign matter. We have not made a test on yarn strength or nep count. Spinnable fiber removed is negligible. Our pickers require 1,200 pounds per hour through each machine. The S.R.R.L. runs continuously and the feeders supplying the S.R.R.L. operate 82% of the time. Raw stock run is $\frac{7}{8}$ to 1-inch strict low middling. The setting between the saws is 0.068.

Mill U: Our opening and blending with the S.R.R.L. opener is good. Yarn breaking strength is approximately the same. There is no noticeable change in nep count in our short staple fibers. We are presently producing 994 pounds per hour. Our S.R.R.L. cleaner is placed after the Superior cleaner in the line. Cotton taken from the S.R.R.L. goes to the No. 11 condenser and then the picker room. We run a mix of middling light spot with $\frac{7}{8}$-inch staple length. We use conventional settings and run the opening line approximately 90% of the time.

Question No. 2—In regard to the various new type cleaning machines now being used, give your layout of machines as they are used in the cleaning line.

Mill P: We have two lines of opening equipment. Each line consists of six F-5 feeders having a pre-opener and cleaner. Cotton then goes to a No. 11 screen section and then to an S.R.R.L. opener-cleaner. A condenser takes the cotton from the S.R.R.L. to a pipe-line. In the picker room, we have another condenser which pulls the cotton through the pipe line and deposits it into a gyrator. The gyrator and rake distributor feeds seven pickers.

We feed from 24 bales on each mix; staple ranges from $\frac{7}{8}$-inch to one inch; grades are S.L.M. as well as some other types. Micronaire averages 3.75 on one mix and 4.00 on all others. Due to size of the department, we were not able to change any maintenance job assignments. We were able to lower grade of cotton in some of our mixes. No test was made on nep count.

Mill R: Our opening line consists of two units each containing:

4 F-7 feeders
2 Superior cleaners in tandem
1 Axiflo cleaner
1 No. 11 dust and leaf extractor

We run 24 bales per mix. The cotton is strict low middling bright with one-inch staple. Our Micronaire reading averages 4.3. Waste removed at each machine is: (1) hopper drawer—0.07%; (2) 1st Superior cleaner—0.47%; (3) 2nd Superior cleaner—0.34%; (4) Axiflo cleaner—1.08% and (5) dust and leaf extractor—0.07%. The total waste removed in the line is 2.03%. The number or type of these machines did not affect job assignment. We are in the process of experimenting with lower grades but results are not complete so far. We have found no appreciable difference in nep count and breaking strength.

Mill T: Our cleaning line machine layout and the percent waste taken out by each unit is:

	Percent Waste Removed
Lummus blending feeder	0.47%
Lummus Gyrators	0.24%
Saco-Lowell No. 11	0.09%
Saco-Lowell No. 12	0.83%
Saco-Lowell No. 11	—
Saco-Lowell No. 12	0.71%
Saco-Lowell No. 11	—
Centrif-Air cleaner	0.51%
Sweeps and dirt	0.06%
Total	2.91%

We feed 20 bales per mix. Our cotton is $\frac{15}{16}$-inch low middling. The Micronaire reading averages around 3.6. We have not changed maintenance assignments and did not lower grade of cotton with the new cleaners. We have had an improvement in neps and breaking strength.

Mill U: We use 15 bales in our mixes. Of these 15, 13 are strict good ordinary and the other two are No. 1 strips. We do not control our Micronaire on this mix. The percent waste removed by the machinery in our opening line is:

	Percent Waste Removed
Axiflo	2.45%
No. 12 opener	0.43%
No. 11 condenser	0.44%
Superior cleaner	0.26%
Centrif-Air	0.23%
Total	3.81%

By using this opening line we were able to reduce the grade of our stock from low middling to strict ordinary. Our neps are about the same. Our yarn breaking strength has improved and ends-down were reduced to approximately one-half.

Mill V: We use two lines of opening. Each line has four feeders, a No. 12 lattice opener fed by a No. 11 dust and waste extractor and a Superior cleaner fed by a second No. 11. These lines converge into one through a third No. 11 which feeds an S.R.R.L. opener.

We run 12 bales per mix with two lines coming together to blend 24 bales. Our cotton is $1\frac{1}{32}$-inch middling to strict low middling. Our Micronaire runs 3.6 and up. We were able to lower grades of cotton with this opening and cleaning line. We have seen very little or no effect on neps or yarn breaking strength from the cleaning lines.

Question No. 3—What is your experience with high compression rolls on pickers?

Mill	Diam. of Lap (inches)	Total Lap Weight (less pin) (lbs.)	Air or Dead Wt. Compression	Has Compression Changed Variation	Allowed Tolerance On Lap Wt. (lbs.)
G	19	80	Air	No	¾
H	18	57.6	Air	No	½
L	17	58¼	Air	No	¾ + or 1½—
S	20	70.7	Air	slight increase	1
T	16	59.02	Air	No	½

(Eds. Note—Only Mill S said that it used a mechanical handling system from conveying laps to the cards. The mill uses an American MonoRail conveyor. None of the mills answering said they use lap pin pushers in conjunction with high compression rolls. Mill T makes a 17-ounce-per-yard lap. The others make laps weighing 14.0 and 14.5 ounces.)

Question No. 4—What has been your experience with the new high speed drawing frames?

Mill N: We run our drawing at 210 feet per minute. Our stock is strict low middling ⅞-inch to middling 1¼-inch. We have no pneumatic cleaners on this four-roll drawing. Tenders run 32 deliveries. We have seen no significant difference in maintenance cost when comparing this drawing to slower frames. We use the staggered creeling system. The frames have 14x36-inch cans which hold 24 pounds of 69 grain sliver.

Mill R: We have 96 deliveries of new high speed drawing. Of this total, 64 deliveries run at 300 feet per minute and 32 run at 400 feet per minute. We run strict low middling bright cotton with one-inch staple. Tenders run 32 deliveries. The sliver evenness has improved by about 20%. The frames have pneumatic clearers which gave some trouble at first. This trouble is straightened out now. We have found a break draft of 1.11 best on high speed drawing. The total draft is 6.0. We are running both staggered creels and solid creels. Random creeling produces more even yard-to-yard weight but solid creeling gives better efficiency. Our card cans are 14x36 inches and our drawing cans are 16x42 inches. The drawing can holds 35 pounds of stock.

Mill S: We run our drawing at 308 feet per minute. We run $1\frac{1}{16}$-inch cotton; 1½-inch rayon; and 1½-inch nylon. Our tenders run 32 deliveries. Evenness is improved. We do not use pneumatic clearers. The best break draft on our Versamatic is 1.18. On our four-roll drawing, the best break draft is 1.28. The 16x42-inch can used on this drawing holds 40.5 pounds of 60 grain sliver. We use revolving undercleaners and find that the advantages are—no picking and less clearer waste slubs.

Mill U: We are presently running 208 deliveries of high speed drawing at 400 feet per minute. We use strict low middling bright cotton with $1\frac{1}{32}$-inch staple, and ⅞-inch middling light spot. Our tenders run 48 deliveries. Variation in sliver dropped from 25% to 16% when we put in the new frames. We have had very little trouble with pneumatic clearers. However, it is mandatory that they be set correctly. We used a 1.27 break draft on four-roll frames and use a 1.48 and 1.60 break draft on the high speed frame, depending on the staple of the stock. We creel breaker drawing solid. The finisher drawing is creeled a delivery at a time. We use an 18x42-inch can, holding 42.5 pounds of 62 grain sliver on breaker creels. The drawing frames have 16x42-inch cans holding 37.5 pounds of 62 grain sliver.

Question No. 5—What is your experience with installation of anti-friction steel rolls in spinning frames?

Mill B: We increased front roll speed about 5%. Our ends-down per thousand spindle hours dropped from 70 to 35. Yarn uniformity is more even by about 6.5%. Breaking strength of the yarn increased only slightly. The draft run on these frames was increased 200%.

Question No. 6—What system do you use to control waste where using the vacuum ends-down collector?

Mill B: We weigh the waste from each spinner's job periodically. Ends-down per thousand spindle hours is about 35. Our waste is 2 to 2.25%.

Mill C: The spinners are instructed to patrol their jobs as frequently as possible. They are also instructed to break back roving when tapes are off. Our ends-down range from 25 to 40 per thousand spindle hours. Our counts range from 4.00 to 42.00 with a waste per cent of 2.65.

Mill F: Each operator's waste is weighed each shift and posted in the department for all to see. Our E.D.P.T.S.H. is 28 and waste averages 1.5%.

Mill J: At irregular intervals we spot check on individual spinner jobs to see the amount of scavenger waste being made. We have individual frame collectors. On 31s warp the E.D.P.T.S.H. is about 40. On 41s filling it is around

45-50. Scavenger waste is running about 2.4% of cotton opened.

Mill M: The only system we know of for controlling vacuum waste is to keep end-breakage low, good spinners, and correct work assignments. With this and good supervision, waste should be kept to a minimum.

Mill R: We try to spot check our spinners periodically. Our over-all vacuum waste for warp and filling ranging from 3s to 26s has been averaging 0.94%. A recent check on 26s filling showed 0.63% waste with 22.8 ends-down per thousand spindle hours. This was a 14,000 spindle-hour check.

Mill V: We weigh the waste from collector boxes each shift. We can point out jobs which may be running poorest or be the poorest attended. We average 130 pounds waste per shift out of 9,600 pounds production. This is a percentage of 1.34 meaning 1.34% of all ends are down all the time if no allowance is made for room lint filtered out with fiber in the collector box. This figure indicates a range of 12 to 15 ends-down per thousand spindle hours.

Question No. 7—Have you experimented with the new type corrugated synthetic clearer or other new materials for covering revolving front top clearers?

Mill D: We have a few synthetic covers for revolving front top clearers. These are smooth type. We find they keep the top rolls clean although some lint does accumulate in time and there is some tendency to shed. We believe these are much better than the old type plush covers for revolving clearers and we find they need cleaning only about once per month.

Mill E: We have one frame of corrugated clearers and have found cleaning frequency to be reduced.

Mill F: We have used the corrugated synthetic for covering revolving clearers with the results:

Armstrong Roller Covering No. 762 and No. 727—very unsatisfactory.

Dayco S. G. Roller Covering—Fairly good as far as we have tried it. There is some collection of waste in the clearers.

Mill H: We have been using the new type synthetic revolving top clearers on front top roll. This clearer does not load and eliminates picking clearers.

Mill J: Using the corrugated type synthetic clearer we experienced higher ends-down and gouts in the yarn due to loading. The clearers were taken out of use.

Mill K: We used Sta-Clean clearer cots. We found rolls to be harder to pick and dirtier. We have since re-covered the rolls with clearer cloth.

Mill L: We are now running six frames with the corrugated synthetic clearer. We have been having very good results on synthetic fibers. We find on cotton filling yarns, the rollers need more cleaning. We are still in the experimental stage with these clearers.

Mill Q: We have 16 filling frames covered with Sta-Clean rubber covering. We believe the covering causes some slubs in the yarn because the clearer waste turns loose and gets in the yarn.

Mill R: We put one frame on with corrugated type clearers. The ridges ran parallel to the cot. Our results were quite disappointing in that the clearers loaded badly between ridges. We are now planning to try a frame with ridges on the clearers running at an angle to the cots.

Mill T: We are now experimenting with the new type corrugated synthetic clearer. This clearer looks good but instead of us picking up the excess lint, it is being left on the rolls and going into the yarn.

Mill U: We have equipped 40 frames with the Sta-Clean clearers. The results have been that we have eliminated approximately 75% of our top roll laps and have added a side to our spinning jobs. We have more of these clearers on order.

Question No. 8—What has been your experience with nylon spinning tapes?

Mill B: About a year and a half ago we started using nylon tape. We have found the average life is over twice as long as cotton. We bond tape. We have had very little trouble with bonds coming loose and very little trouble with the bonding machine. The tape cost is about the same due to nylon running longer than cotton but we show a savings in labor due to not having to put on as many tapes.

Mill C: We experimented with two frames of bonded nylon tape, two frames of bonded nylon-cotton tape, and two frames of sewn cotton tape. We experienced little bonding trouble with the nylon tape. What little trouble we did have with nylon tape we attributed to inexperience of the operator. The nylon-cotton tape was unsatisfactory due to bonding difficulty. The nylon tape will last approximately twice as long as the cotton tape. The nylon tape cost approximately 2½ times as much as cotton tape. Our test showed a power saving of from 7 to 15% with nylon tapes.

Mill F: We have run tests of nylon tapes against cotton tapes since May 1957. We use the bonding machine to join the ends. We have no trouble with the bonds coming apart, or with the machine itself. After 9,692 hours, we have lost 12.3% of the original nylon tapes and 22.9% of the cotton tapes.

Mill K: We have had a test frame of bonded nylon tapes running beside a test frame of cotton sewn tapes since August 1955. These frames have run 18,288 hours. Four nylon tapes have been removed as compared to 13 cotton tapes. We have no trouble with bonds holding.

Mill L: We have been using nylon tape on all of our spinning for about three years. We bond all our tape and have received very good results. The timer on the bonding machine has given some trouble. We have had a 60% reduction in the number of tapes off. Nylon tape costs twice as much as cotton tape. We have had a labor saving on replacing tapes and figure we are saving $2.00 per frame per year on power. We are getting more production because of having more spindles in operation.

Mill R: We tried several frames of nylon tapes but were unable to come to any conclusions due to bonding problems. However, our bonds are apparently holding satisfactory now, so we are in the process of putting on a good size trial installation.

Mill T: We tried nylon tapes on one frame and they were not satisfactory. We had trouble with the bonding process.

Mill U: We have been using nylon tapes for a few months. We bond these tapes and have had no trouble since we learned to use them. We have had some battery trouble and have had to buy a thermometer to set the heating elements correctly. We have not been using them long enough to compare their life with that of cotton tape.

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The LOOMFIXER And His Job

By WILMER WESTBROOK

Part Nine

THE loom take-up motion will give little trouble if a program of preventive maintenance is followed. To check the motion turn the gears by hand at warp-out to make sure that none of them are binding or sticking. Check the take-up roll for loose, torn or worn covering. Any accumulation of dirt and grease should be cleaned from the gear teeth and the gears, studs, shafts and bearings should be lubricated.

The pick change gear of the worm and spur gear types of take-up should be removed at warp-out, cleaned thoroughly and the stud lubricated. Turn the take-up by hand, both forward and backward, when the pick change gear is replaced and see that the gears are not binding and do not have lost motion.

If the gears are meshed too close the take-up will be uneven and will cause wavy cloth. The let-back will not operate correctly and thin places will be caused in the cloth when there is a filling breakage.

If the gears mesh too shallow the slack will not be taken out when the filling breaks and this will also cause a thin place in the cloth.

Inspect Pick Wheel

The pick wheel of the ratchet type take-up should be inspected for worn or chipped teeth and the ratchets should be inspected at warp-out. The ratchets should have smooth, clean edges and the springs should hold them firmly against the ratchet teeth.

Replace the take-up roll bearings or journals when they become worn. The journals can be built up by welding or brazing and then turned down on a lathe. The bearings can be made as good as new by inserting bushings of bronze or powdered metal in them.

The take-up roll bearings must be correctly aligned so the roll will turn freely. Much off-quality cloth is caused by a sticking or binding take-up roll.

It pays to check the condition of the take-up roll covering frequently. The covering should be replaced when it becomes worn or broken. If it becomes loose it can often be tightened without removing the cloth. If the slack place is near the end of the roll remove the nail, pull the covering tight, and drive the nail back in the new position.

The loom take-up motion will give little trouble if correctly set and maintained. The author tells the best way to do this and also explains methods of take-up roll covering and fillet splicing.

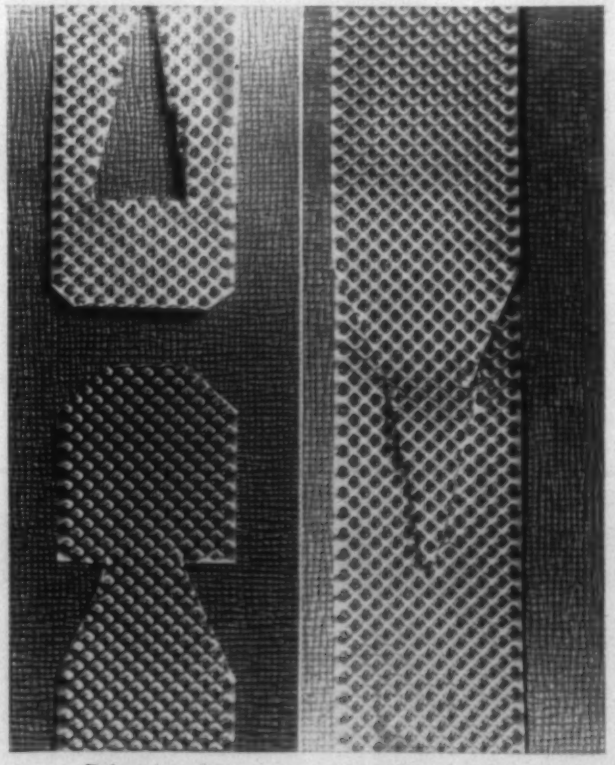
There are several types of take-up covering and each is best for its own particular range of weaves. Steel fillet is usually used for coarse cotton goods woven on looms equipped with high-roll take-up motions. Emery-coated cloth or rubber covering is most often used for low-roll take-ups and light cotton or rayon weaves.

Rolls can be covered in the loom but it is best to remove rolls that are to be covered with rubber or cloth-backed covering. Glue, cement, or shellac is used with this type of covering and it should be given eight to 12 hours to dry.

Steel Fillet

Steel fillet should be drawn as tightly as possible on the roll and fastened with a single nail at each end. After the loom has been in operation for a few hours the cloth will further tighten the fillet and a nail should be removed to take the slack out of the end of the fillet.

Sometimes the steel fillet will become broken or a piece



Before insertion — After insertion

Fig. 1—Steel fillet may be permanently spliced by inserting the notched end of the fillet in the triangular opening in the other piece and pulling tight.

Fig. 2—Set the let-back pawl so that it falls just behind a tooth in the gear.

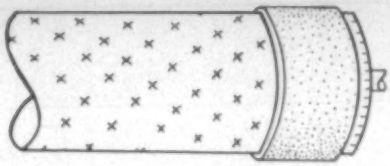


Fig. 3—A piece of rubber covering tacked on the end of the take-up roll will often prevent curled or slack selvages.

of new fillet will not be long enough to cover the roll. A durable splice can be made that will hold indefinitely and will not harm the cloth. The method of splicing is shown in the illustration.

On heavy weaves, especially when plain selvages are used, the selvages will sometimes be slack and have a tendency to curl. A strip of rubber fillet wrapped around each end of the roll under the selvages will relieve this condition.

Some mills report good results with metallic coated rolls. The roll is removed from the loom, placed in a lathe and molten particles of metal are blown onto it under high pressure as the roll slowly revolves. Finishes of varying degrees of roughness can be made for a wide range of weaves.

It is important to set the let-back correctly. Some weaves will require more let-back than others. To prevent thick or thin places cause the let-back to operate on a filling break and then adjust the pawls forward or backward as needed. The amount of let-back on the worm take-up can be arranged by placing a cotter pin in any one of a number of holes in the bracket. But be sure that the pawl drops behind a tooth in the gear on each pick. If it rests on top of the tooth or too far behind it the pawl will jump and cause excessive let-back.

Keep the traverse gears and racks clean on looms with high roll take-up motions. See that there is equal tension on both ends of the cloth roll and that the cloth roll blocks or bearings are in good condition. Unequal tension or worn bearings will often cause the cloth roll to telescope and the selvage will become soiled or worn where it rubs the cloth roll stand.

A NEW WARP TENSION CONTROL DEVICE AND ITS APPLICATION

By GAIN L. LOUIS AND RICHARD L. LONGWORTH, Southern Regional Research Laboratory, New Orleans, La.[1]

RESEARCH on weaving cotton fabrics frequently requires that fabric width be controlled very closely in order to obtain valid data[2]; however, it is difficult to accurately control width on most textile looms because of the relatively coarse means provided for adjusting warp tension. In an investigation at the Southern Regional Research Laboratory to determine the effect of cotton fiber fineness on the dimensional stability of fabrics during weaving and finishing, it was found necessary to develop a device that would enable precision control of fabric width over a wide range of tensions; the design and results of using the device are presented in this paper.

In conducting the research it was planned to vary warp tensions and thereby maintain constant fabric width, and to maintain fixed warp tensions and allow fabric width to vary in accordance with fiber and/or yarn effects. This plan required the precise, reproducible application of small changes in warp tension. A micrometrically adjustable pre-

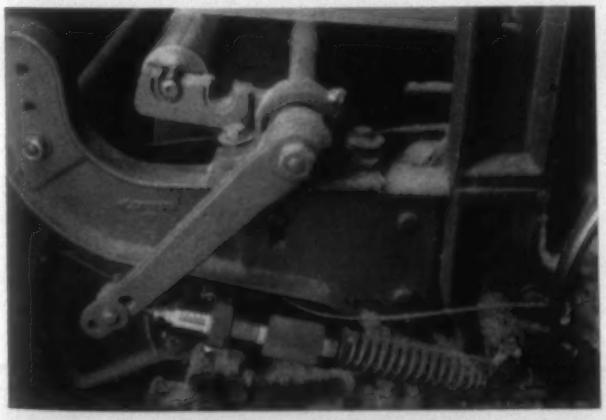


Fig. 1—Warp tension device.

venter spring collar for the loom was developed (Fig. 1) which performs the dual function of providing a means for applying very small increments of warp tension and of serving as an accurate gage to enable resettability.

Description Of Device

The tension control device consists of three parts (Fig. 2): the barrel, the thimble and the locking collar. Basically similar to a conventional micrometer, the barrel is calibrated in $\frac{1}{16}$-inch increments for a two-inch length on each side of a zero median. Quadrant calibrations on the thimble permit the accurate setting and measurement of $\frac{1}{64}$-inch increments of width. This unit replaces the conventional preventer spring collar on the loom whip roll vibrator rod. To place in operation, the thimble is set for approximately $\frac{1}{4}$-inch in the negative range and the barrel is locked to the vibrator rod as the approximate warp tension is applied by hand. Adjustment to the zero position will then allow loom operation at near normal tension. Slight adjustments on either side of zero will permit the application of warp tension for the desired fabric width. Once the desired setting has been obtained, a locking collar is provided so that the setting can be maintained during loom operation.

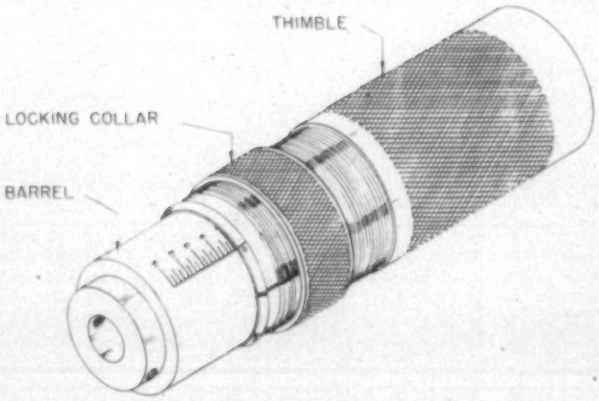


Fig. 2—Principal parts of the tension control device.

An investigation at the Southern Regional Research Laboratory on the effect of fiber fineness on the dimensional stability of fabrics during weaving and finishing lead to the development of a device to provide precision control over fabric width over a range of tensions. A description of the device is given, along with some of the results obtained from its use.

1. One of the laboratories of the Southern Utilization Research and Development Division, Agricultural Research Service, U. S. Department of Agriculture.
2. Kennamer, H. G., Mayne, S. C. Jr., and Berkley, E. E. TEXTILE RESEARCH J., 26, 812-820 (1956).

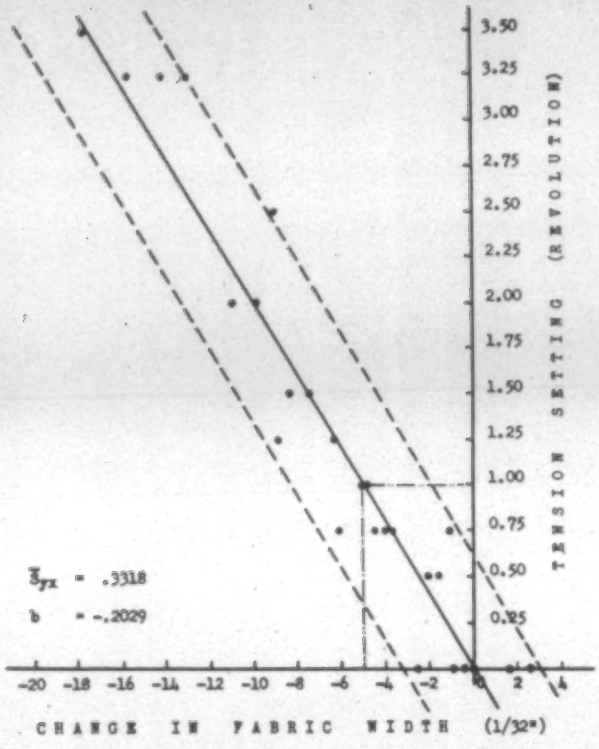


Fig. 3—Each of the points shown is based on three fabric width measurements and represents the average deviation from the standard width. The points indicated that the device was able to control the warp tension and in turn control fabric width regardless of width deviations.

To further improve the sensitiviy of the letoff, the wooden whip roll shaft bearings were replaced with self-aligning ball bearing pillow blocks.

Testing Procedure And Experimentation

The device was evaluated in connection with the experimental weaving of fabrics in which a common warp was used with 15 different fillings of the same yarn number but differing in fiber fineness and twist. The fabric produced was a 64x64 standard sheeting construction. The differing characteristics of the filling yarns caused changes in warp tension and fabric width; these effects and their cause will be discussed in detail in a later report. Fillings were woven first under standard tension and then under adjusted tension (adjusted to produce fabric of 36-inch width). Standard tension is defined as the tension used in weaving the control filling (4.0 Micronaire cotton with 3.6 T.M.) into a standard width of 36 inches.

Analysis Of Data And Application

Each of the points in Fig. 3 is based on three fabric width measurements and represents the average deviation from the standard width. These points indicated that the device was able to control the warp tension and in turn control fabric width regardless of width deviations. Specifically, the device was able to correct either a $36\frac{1}{32}$-inch width or as wide as $36\frac{9}{16}$-inch fabric back to 36-inch standard width by simply turning the thimble on the tension control device whereas with conventional means the changing of such great deviation as $\frac{9}{16}$-inch is quite tedious and time consuming and the changing of $\frac{1}{32}$-inch of the fabric width is quite laborious if not impossible because of coarse adjusting means.

Furthermore, a regression line was calculated on the basis of 26 sets of fabric width measurements data. The slope of the line denoted the proportional relationship between tension device setting and fabric width; each revolution on the thimble changed the fabric width about $\frac{5}{32}$ inches or about $\frac{1}{32}$ inches per quarter turn. Conversely, the regression line also serves as a guide and index for reproducing a desired fabric width; e.g., if a change of fabric width from 36 inches to $36\frac{5}{32}$ inches is required, merely turn the thimble 1.0 complete revolutions toward the positive range of the calibration as indicated by the cutting plane lines in Fig. 3. This permits simple and accurate resetting. The regression line goes through the origin since the fabric width does not change unless a change in tension occurs.

Summary

The S.R.R.L. tension control device has proved to be a useful tool for research purposes, and it may have merit for controlling warp tension in the commercial production of high count, hard to weave fabrics. Full details and engineering drawings of the device are available without charge from the Southern Regional Research Laboratory, P. O. Box 7307, New Orleans 19, La.

Acknowledgment

The authors would like to thank Jack E. Sands and John D. Tallant for their helpful advice. Credit also is due Herschel W. Little for his statistical analysis, and to Norris P. Roddy for obtaining the weaving data.

FOUR-PIECE SLEEPER WARDROBE—A four-piece sleeper wardrobe in one package is a new feature in the Fall sleepwear line by P. H. Hanes Knitting Co., Winston-Salem, N. C. The package contains two two-piece sleepers, one in Zoo Parade print, and the other in a co-ordinated pastel solid. Tops and bottoms can be mixed or matched with each other to give the effect of four different garments. This is the first time that a two-in-one package of sleepers has been offered to the trade, Hanes points out.

Treated Spinning Rings And Higher Traveler Speeds

By JOHN FOARD*

FOR many years the study of spinning rings and travelers has been a very interesting one. During the past few years much concentrated time and effort has been expended on spinning rings to produce surfaces that would enable travelers to be operated at higher speeds, thereby permitting greater production of yarn.

The poor compatibility of mated ferrous metals used as bearing surfaces is well known. Results of such matings are excessive wear, scoring, seizing and galling. These conditions are identical with the operation of a steel traveler against a steel ring, and are multiplied where no lubrication can be used. Then the speed and life of the ring and traveler is definitely restricted to hardness and surface finishes produced on the respective articles.

The surface finish on the best of hard, carburized or nitrided, polished steel rings is microscopically smooth, and at the same time microscopically rough, and under high magnification has the appearance of a ploughed field. From laboratory analysis, on some of the best rings on the market, smoothness ranged from 9 to 25 RMS (micro inches). Before a traveler can reach its peak efficiency on a ring, it must perform a job that cannot be done by polishing or burnishing with abrasives. The traveler must burnish a super fine track for itself within the many microscopic serrations left on the hard surface of the ring by polishing compounds.

To reduce the coefficient of friction between the traveler and the ring, and to assist the traveler in breaking in a track for itself, many superficial metallic, chemical and dry lubricant finishes have been used and tested. Of the many finishes tested, a metallic coating of a specific hard nickel proved the most satisfactory, although there were other metallic and metallic alloy coatings tried with improved results over bare steel.

The nickel coating referred to has a hardness of approximately 51 Rockwell C Scale, and when applied has a leveling and smoothing action on the surface of rings, by filling in and coating the microscopic depressions, or serrations, on the ring surfaces. Highly polished rings of a well known manufacturer were tested for smoothness before and after coating. Before coating the smoothness was 25 RMS; after coating 1.9 RMS. Travelers are now being manufactured with a similar nickel coating and are giving outstanding results.

In addition to the application of coatings on spinning rings, extensive break downs of ring cross sections were studied. Running tests made over a two-year period prescribed changes in degrees of ring design which also result in aiding better traveler operation.

One of the most talked about rings on the market is the comparatively new Kluttz Lubri-Cased ring. The author of this brief treatise is the man who developed it. He points out herein some of the factors to be considered in searching further for the ultimate in both rings and travelers.

New Process

Notwithstanding the many good evaluations given the nickel and other superficial coatings which were tried, we abandoned all in favor of a new process for treating ferrous metal parts to be used as bearing surfaces. This process produces a surface on ferrous metal which is not superficial, in entirety, but penetrates into the metal to controllable depths producing, so to speak, "built in dry lubrication."

The treatment referred to is patented and licensed under the name of Lubri-Case. It is basically a salt bath treatment and contains sulphur in an incompletely oxidized form and is maintained at a continuous heat of 1,050 degrees F. After treating rings in this bath for a given time, sulfide films which have formed in the steel react to produce a continuing lubricity on the ring surface. This dry lubricity is quickly noticed after rubbing action between the traveler and ring begins. It will continue to function at contact heat up to 1,050 degrees F.

The Lubri-Case treatment does not impart any hardness, and after being treated in this bath, rings are further processed to a surface hardness of over 60 Rockwell C Scale. Hundreds of thousands of Lubri-Case rings are now in operation. Traveler speeds have been greatly increased, as well as traveler life. Rings may be started up at high spindle speeds with full break-in time being a matter of a couple of traveler changes.

The extended life of Lubri-Case rings is yet to be proven. From tests covering a period of two years it is assumed that their life will be equal, if not longer, than common carburized or nitrided rings. Where traveler speeds higher than those that can be maintained on plain carburized or nitrided rings are being applied, due consideration should

*Kluttz Rings Inc., Gastonia, N. C.

be given to the additional traveler trackage or mileage around the ring. In the event of a shorter life span on Lubri-Case rings, due to much higher traveler speeds, the resultant increases in yarn, and other factors, will more than compensate for any losses due to ring wear. Abrasive tests on hard carbon steel rings which were untreated and similar rings treated with Lubri-Case have shown the treated rings have a wear factor better by more than 25%.

New Developments

Regardless of the fact that great improvements have been made on spinning rings and traveler operations, we do not conclude that the ultimate has been reached. Current tests may place an entirely new evaluation on both the ring and the traveler. For some time it has been known that a softer Lubri-Cased ring, approximately 41 Rockwell C Scale, will permit much higher traveler speeds and much longer traveler life than a ring of over 60 Rockwell C Scale that has been Lubri-Cased. A traveler life of over 40 times more has been recorded on such rings. Breaking-in time has been reduced to a matter of minutes.

After approximately eight months of actual mill operation with traveler speeds of over 6,200 S.F.M., and using hard steel travelers, the softer rings start showing a breakdown under the flanges. This breakdown takes the form of waves. Under much slower conditions similar rings have been running over 18 months on one side with no indication of any breakdown.

A search for traveler material with a more compatible bearing factor against steel has resulted in an alloyed metal which can be easily formed and will retain a hardness equal to steel. This material is much more compatible with the softer Lubri-Cased ring as well as hard rings. Early observations indicate it will be capable of promoting ring wear, traveler life and previously impossible speeds.

Initial evaluations made on this material are from laboratory abrasive tests only. Parts made from this material have yet to be subjected to mill conditions.

Good Finish Necessary

Treating rings with Lubri-Case does not eliminate the necessity of producing a low micro inch finish before treating. The better the finish before treatment, the better the rings operate afterward.

Polishing and buffing of rings for low micro-inch surfaces has long been the most expensive operation in their manufacture. The focal point of the operation is the inside and under the inside flanges. Due to the general contours of a ring it has been economically impossible to finish their surfaces satisfactorily by grinding or honing such as is done on ball bearing races, etc. A larger portion of the finishing on rings has been done by hand. This is a slow, tedious and expensive operation.

A machine has recently been completed which will greatly increase production on spinning rings, eliminate a lot of costs and give the rings a much better and more uniform finish. This machine is capable of producing extremely low micro-inch surfaces on the inside of rings at a rate of more than 2,000 per hour.

Within a short while it is believed that rings and travelers can be offered to the mills which will greatly contribute to their economy and production.

N. C. Textile Safety Contest Winners Named

Winners in the seven categories of the 23rd annual state wide textile safety contest have been announced by J. W. Bean, chairman of the North Carolina Industrial Commission, which sponsors the contest jointly with the North Carolina Textile Manufacturers Association.

The seven first place winners were: Belmont Throwing Corp., Belmont, in the 125 or less employees category; Talon Inc., Stanley, in the 125-200 employees class; Burlington House Fabrics Co. finishing plant, Burlington, 201-300 employees class; Esther Mill Corp., Shelby, in the 301-500 employees class; Laurel Mills, Rutherfordton, 501-800 employees; Klopman Mills, Asheboro, 851-1,150 employees; and Cannon Mills Co., Plant No. 1, Kannapolis, in the over 1,151 emlpyoees category. A total of 464 textile mills entered the 1958 contest.

Cotton Consumption, May 1959

Cotton consumption in the U. S. in May totalled 702,362 running bales, down from April's total of 716,820 but considerably above the May 1958 consumption of 600,256 bales. Of this total the cotton growing states consumed 673,407 bales while New England consumed 25,659 bales. The daily average consumption in May was 35,118 bales. Cotton stocks totalled 10,248,895 running bales in May as compared with 11,130,017 in April and 10,166,487 bales in May of 1958.

Consumption of foreign cotton totalled 7,456 running bales against 7,822 bales in April and 5,729 in May 1958.

Man-made fiber staple consumption for the month of May totalled 40,008,000 pounds. This compares with 36,631,000 pounds in April and 31,543,000 pounds in May of last year.

Cotton-system spindles in place in May totalled 20,356,000 as compared with 20,402,000 in April and 20,971,000 in May 1958. Active spindles totalled 19,238,000 against 19,555,000 in April and 19,263,000 in May 1958. Spindle hours for the cotton system in May totalled 9.6 million, approximately the same as April but up from the May 1958 total of 8.2 million hours.

A.A.T.C.C. Announces Technical Program

The American Association of Textile Chemists & Colorists has released the details of its technical program for the 1959 convention. The technical program will begin Thursday, October 8, at 9:15 a. m. with a wash-and-wear symposium under the direction of Paul Stam, director of research for J. P. Stevens & Co., New York City. The symposium will consist of the following presentations: "The Consumer's Point of View," Genevieve M. Smith, textile laboratory of Sears Roebuck & Co.; "Man-Made Fibers for Wash-And-Wear," James R. Bercaw, textile research laboratory, The Du Pont Co.; "Progress in Wash-And-Wear," John F. Krasny and John Menkart, Harris Research Laboratories; "Man-Made Cellulosic Fibers in Wash-And-Wear," A. B. Hilton, G. V. Lung and A. E. Martin Jr., Courtaulds (Alabama); "Retrospect and Prospect: Progress and Problems in Wash-And-Wear," Professor Pauline Beery Mack, Texas State College for Women.

At 2:15 Thursday afternoon a symposium on the dyeing and finishing of blends will be held under the leadership of James Greer, chemist with the dyeing and finishing division of Burlington Mills Corp. The following presentations

will be made: "Recent Developments in Finishing," Henry Latham, The Arkansas Co.; "Recent Problems in the Dyeing and Finishing of Dacron Blends," Paul Meunier, the technical laboratory of The Du Pont Co.; "Techniques for Union Dyeing Blends of Zefran and Cotton With Vat Dyes," R. L. Burgess, textile development department of Dow Chemical Co.; "Dyeing and Finishing of Special Blends of Arnel with Acrylics or Cotton in Circular Knit Applications," Ralph E. Lacy and Jack Dayvault, Celanese Corp. of America.

The final symposium of the convention will be on new dyeing and finishing processes and will be held Friday morning at 9:15 under the chairmanship of Fred Fortess, manager of dyeing and finishing laboratories at the Celanese Corp. of America. The invited papers are: "Twelve Million Yards of Natural and Man-Made Fibers Dyed on the Swedish Pad-Roll Machine," Robert M. Lesh, Northern Dyeing Corp.; "Present Day Trends in Bleaching," by Bernard K. Easton, inorganic research and development department of the Food Machinery & Chemical Corp.; The Monforts Reactor—A New Continuous Dyeing Machine," Joachim Roehl, A. Monforts Maschinenfabrik, M. Gladbach, Germany; "Dyeing Blends of Dacron Polyester Fiber and Cotton by the Thermosel Process," Joseph J. Iannarone Jr. and William Wyrand Jr., organic chemicals department of The Du Pont Co. The intersectional contest will be held on Friday afternoon at 2:00.

Burlington Sets Up Operations Group

An additional active management body to be known as the operations committee has been set up by Burlington Industries, Greensboro, N. C. Some present functions of the executive committee will be turned over to the group. Purpose of the move, according to the company, is to broaden the top management and give opportunity for the practical and responsible development of younger executives.

The new committee will be in charge of all merchandising, manufacturing, administrative, staff and similar operations functions except the financial accounting, legal and tax areas.

Members of the new committee are: Carl Annas, group manufacturing executive; Ely R. Callaway Jr. and E. H. Hines Jr., executive vice-presidents of Pacific Mills; Raymond E. Kassar, president of Burlington House Fabrics Co.; Charles A. McLendon, vice-president of Burlington Industries; and John B. Russell, president of Mooresville Mills.

Current Wool Consumption Well Above 1958

The weekly average rate of fiber consumption on the woolen and worsted systems in May 1959 was 33% above that of May 1958, according to the Bureau of the Census. May 1959 consumption was 3% below that of April 1959. The weekly average raw wool consumption during May 1959 was 8,907 thousand pounds (scoured basis) or 4% below the April level and 56% above that of May 1958. Consumption of apparel class wool was 2% below the April rate and 34% above that of May of last year. The rate of consumption of carpet wool was 7% below consumption during the preceding month but more than twice the May 1958 rate.

Woolen and worsted fabric production during the first

quarter of 1959 was 71.8 million finished linear yards. This was 8% above the fourth quarter 1958 output, and approximately 18% above the comparable period of the previous year.

The output of women's and children's clothing fabrics at 36.3 million finished linear yards was 2% above that of the previous period, and 15% above the output of the first quarter of 1958. Men's and boys' clothing fabric production increased 21% during the first quarter to 32.5 million finished linear yards.

Output of non-apparel fabrics was 19% below the previous quarter. Production of blanketing decreased 26% to approximately 1.5 million yards. Production of transportation upholstery and other non-apparel fabrics amounted to 0.6 million yards during the first quarter of 1959.

Annual production of woolen and worsted fabrics declined in 1958 to 270 million linear yards from the 1957 level of 294 million yards and the 1956 output of 324 million yards. The major portion of the decline occurred in men's and boys' clothing fabric production which in 1958 amounted to 107 million linear yards. This compares with a production of 129 million yards in 1957 and 155 million yards in 1956. Output of women's and children's clothing fabric in 1958 was slightly above the 1957 level and almost seven million yards below the 1956 production.

During 1958, looms in place in the mills primarily producing woolen and worsted fabrics decreased by 9% to 14,321 looms. This decrease continues the trend since World War II.

Total fiber consumption on woolen and worsted systems during 1958 amounted to 649 million pounds, 5% below the 1957 level of 680 million pounds, according to the Bureau of the Census. Consumption of raw wool (scoured basis) was 337 million pounds in 1958, a decrease of 9% compared to 1957. The 1958 consumption of apparel class raw wool amounted to 217 million pounds compared with 241 million pounds in 1957, a decrease of 10%. Carpet class wool consumption at 119 million pounds decreased 7% as compared with 1957.

The Market For Cotton Linters

Cotton linters have become an important fiber in many American industries. Linters are used in a wide variety of products—automobile seats, bedding, rayon, writing paper, and even sausage casings. Recently, economists with the Agricultural Marketing Service of the U. S. Department of Agriculture took a look at the market potential for cotton linters. They wanted to know what characteristics were required for each specific outlet and what type of technological research would improve the quality of linters for each market.

In the years 1954 through 1957, the marketing situation for cotton linters was good. More linters were used than were produced. Dealers had to dip into extra supplies from previous high-production years to fill customer orders and even to import larger quantities of felting linters from abroad.

The demand for felting linters depends to a large extent upon sales of bedding, furniture and automobiles. Utilization of chemical linters is influenced by the competition received from dissolving wood pulp.

Chemical linters are used in rayon and acetate fibers, plastics and explosives. This material has an edge over wood pulp where high tenacity or exceptional clarity is needed

in the end product. If linters and dissolving wood pulp are offered at competitive prices, linters are more likely to be used. But if the price of linters is high, manufacturers are willing to substitute wood pulp for linters to lower material costs.

Certain domestic market outlets for chemical linters have been lost to wood pulp because of continual improvements in the quality of cellulose from wood pulp and because of the wide price fluctuations of chemical linters. Once markets are lost, they are hard to recapture.

One of the most promising market outlets for linters is the paper industry. Already some linters are being used in the manufacture of rag-content writing paper, but up to 60% of the total cotton fiber in this paper could be composed of linters. There is, however, one difficulty—technological improvements must first be made to increase the strength of linters. If this were done, sales to paper companies could rise another 80,000 bales a year.

Linters in this country also have a good chance to increase their export market. This may seem odd in the light of increasing imports. However, note that there are two types of cotton linters—one for chemical uses and one for felting. They are of different staple lengths and, by and large, do not compete with each other. Felting linters account for most of the imports into the U. S. Most of our increased exports will be chemical linters.

But before new markets can be obtained or old ones expanded, the product must meet the quality standards set by the various manufacturing industries. Felting users would like a large volume of linters with more staple and harsher character. Cleanliness is desired by chemical users.

If the quality of the linters is satisfactory, price then is the only factor that might determine the amount of linters used.

For chemical linters, the price probably will remain about the same for the next few years. The price of dissolving wood pulp, linters' main competitor in the chemical market, has not changed in recent years and does not seem likely to change in the years just ahead. So, the chances are slight that linters for chemical use will, in the near future, sell for much less than they do now.

It's another story for linters used in felting. In this field there are few competitors and prices may fluctuate some. Information of this type—on the present market situation and on the future market potential—should be useful to the cotton linter industry.

Man-Made Fiber And Silk Production Increases

Production of broad woven goods of man-made fibers and silk was 625,000,000 linear yards during the first quarter of 1959 according to a report by the Bureau of the Census. This production figure was 1% below the fourth quarter 1958 but was 8% above the first quarter 1958 output. Rayon and acetate fabric production was 4% below the previous quarter but 7% more than the output during the comparable period of 1958. The data included in this report represents the entire production of man-made fiber and silk broad woven fabrics (fabrics over 12" in width).

Tire Cord Production Down

A revised report of tire cord and tire fabric production for the years 1955 through 1958, recently released by the U. S. Department of Commerce, shows that 1958 produc-

Use," William H. Oler, Hauck Mfg. Co., Brooklyn, N. Y.; "Maintenance of Gas Fired Equipment," E. J. Skerkosk, Eclipse Engineering Co., Rockford, Ill.; "Radiant Heat Applications," Edwin S. Mack, manufacturers' agent, Signal Mountain, Tenn.; "Installation of Consumer-Owned Gas Piping and Gas Equipment," C. George Segeler, American Gas Association, New York City; "Textile Education and Research at Clemson College," T. D. Efland, Clemson College School of Textiles, Clemson, S. C.

N. C. State To Offer Service To Finishers

The Textile Research Center of the School of Textiles, North Carolina State College, has announced the availability of a new service in cotton finishing. The school, in cooperation with the extension service of the U. S. Department of Agriculture, has assigned Lawrence L. Heffner to aid in the expanded utilization of cotton through improved finishing practices. Heffner is a licensed professional engineer in the State of Maryland, a member of the American Chemical Society, the American Association of Textile Chemists & Colorists and the Maryland chapter of the National Society of Professional Engineers.

Heffner will direct the work of studying the needs which the cotton finishing industry regards as most pressing. He will inventory the research results freely available and applicable, attempt to determine how these results may be channeled to the industry most effectively and will disseminate the information needed by all available methods. He will have the title of cotton utilization specialist.

1st Quarter 1959:

Broad Woven Cotton Production Up

Cotton broad woven fabric production in the first quarter of 1959 at 2,393 million yards was 3% above the previous quarter's total of 2,328 million yards, and 2% above the first quarter 1958 level of 2,347 million yards. Percent changes for the various types of fabrics in the first quarter of this year as compared with the previous quarter are as follows: Duck and allied fabrics—up 3%; sheeting and allied fabrics—up 5%; print cloth yarn fabrics—up 3%; colored yarn fabrics—down 4%; towels and toweling—down 3%; napped fabrics—up 11%; fine cotton fabrics—up 6%. All figures are from the U. S. Department of Commerce.

1958 Production Down 6%

Production of cotton broad woven goods in 1958 amounted to 8,973 million linear yards. This represents a decline of 6% from the 1957 level and 13% from the 1956 level. Production during the first three quarters of 1958 was below the comparable periods of 1957. During the fourth quarter, production increased more than 200 million linear yards and was slightly higher than the fourth quarter 1957 level. The production of fine cotton fabrics in 1958 was 7% above the 1957 level.

U.S.D.A. Seeks Special Use Cotton Fabrics

Better cotton fabrics for special uses such as blankets and certain types of outer garments will be sought by the Lowell Technological Institute Research Foundation under a research contract recently let by the U. S. Department of Agriculture. The contract was negotiated for the U.S.

D.A. by the Agricultural Research Service, Southern Utilization Research and Development Division.

Cotton has been gaining popularity in the fashion market for year-round wear for the past several years, because of its good looks, comfort and excellent wearing qualities. Its appeal might be enhanced, however, by increased resilience, which would maintain its appearance in wearing and laundering.

Previous investigations have shown that the application of some finishing resins will improve resilience. Under the new research project, these and other chemical treatments will be investigated further.

Yarns spun on the woolen system are fuller, looser, more spongy or lofty than those spun on the cotton system due to less parallelization of the fibers. The Lowell Foundation, under its contract with U.S.D.A., will produce experimental fabrics of selected structures from yarns spun on the woolen system from untreated cotton, resin treated cotton and blends of untreated and resin treated cotton.

Experiments will also be conducted to improve the dimensional stability, resistance to wrinkling and warmth properties of such fabrics through application of selected resins, mechanical treatments and curing. Such improvements, it is believed, would materially increase the market for cotton fabrics. John J. Brown, of the cotton mechaincal laboratory, S.U.R.R.D., will supervise the work for the U.S.D.A. Dr. Emery I. Valko has charge of the work at the Lowell Technological Institute.

1st Quarter 1959:
Synthetic Broad Woven Production Down

Production of broad woven goods of man-made fibers and silk was 625 million linear yards during the first quarter of 1959, according to figures given by the Bureau of Census. This was 1% below the fourth quarter 1958 level of 632 million yards and 8% above the first quarter 1958 output of 580 million yards. Rayon and acetate fabric production, at 415 million linear yards for the first quarter, was 4% below the previous quarter's total of 431 million linear yards, but 7% more than the output of 389 million linear yards for the comparable period of 1958. Production of man-made broad woven fabrics other than rayon and acetate totalled 200 million linear yards, an increase of 5% over the production of 190 million yards in the last quarter of 1958 and an increase of 10% over the first quarter 1958 production of 182 million yards.

1958 Production Up 4%

The U. S. Department of Commerce reports that the production of man-made fiber and silk broad-woven fabrics totalled 2,384 million linear yards in 1958. This was 4% higher than the 1957 output of 2,289 million linear yards.

Rayon and acetate broad woven fabric production was 1,654 million linear yards. This compares with the 1957 production of 1,464 million yards and the 1956 production of 1,626 million yards. The 1958 production of 100% filament rayon and acetate yarn fabrics was 2% above the 1957 level, but 11% below the output in 1956. Production of 100% spun rayon and acetate yarn fabrics totalled 419 million linear yards—49% above the 1957 level.

Other man-made fiber fabric production, including silk, in 1958 declined to 730 million linear yards from the 1957 level of 825 million linear yards. This was, however, 10% higher than the 1956 output.

Promotions, Resignations, Honors, Transfers, Appointments, Elections, Civic and Associational Activities

PERSONAL NEWS

J. W. Hubbard

J. Woodward Hubbard, general sales manager of the Saco-Lowell Textile Machinery Division, has been promoted to vice-president of sales. A graduate of Alabama Polytechn Institute with a B.S. in textile engineering, Hubbard has spent his entire business life in various phases of the textile industry, in manufacturing, research, sales and administration. He joined Saco-Lowell in 1947.

Conway Still, formerly president of Southeastern Loom & Machine Works, Greenwood, S. C., has resigned from the company. Still did not announce his future plans.

T. Earl Snyder has joined Stein Hall & Co., and will be assigned to their Charlotte branch sales office as a textile specialty salesman. He will service the greige mill industry in both North and South Carolina. Snyder has had extensive experience in the field of cotton and synthetic textile manufacturing. His previous connection was with Erlanger Mills, Lexington, N. C.

George S. Hills has been named a director of the Chemstrand Corp., New York City. A corporation law specialist, Hills is a member of the law firm Rogers, Hoge & Hills of New York. He is a director of American Viscose Corp., one of the parent companies of Chemstrand.

John T. Lathem has been named superintendent of Pisgah Mills Inc., Brevard, N. C. Lathem, a 1936 graduate of Auburn, has been associated with Marshall Field Co. and Burlington Industries in recent years. . . . B. C. Grogan has been named superintendent of the thread department. . . . Samuel T. Crisp has been named office manager.

B. A. Bobbitt, assistant to the superintendent of the towel mill of Fieldcrest Mills, Fieldale, Va., has been named night general foreman. Bobbitt is a graduate of North Carolina State College with a B.S. in textiles. He became assistant superintendent in 1956.

Ralph Petree and Edward McLean have been named to the textile sales staff of Arnold, Hoffman & Co., Providence, R. I. Both men are presently working as trainees, McLean at Providence and Petree in the company's Southern area laboratory. McLean, a graduate of Brown University with a major in biology and chemistry, joined Arnold, Hoffman & Co. in 1958. Petree, a graduate of Davidson College, will be assigned to Arnold, Hoffman sales in the Southeastern market, after completion of his training period in the company's textile laboratories.

Charles A. Haynes, operations manager of the main plant of Howard Bros. Mfg. Co., Worcester, Mass., has been elected a vice-president of the firm.

C. Perry Clanton has resigned from Saco-Lowell Shops, Boston, Mass. Clanton has been working out of the Charlotte district sales office of the textile machinery division. No explanation of the resignation was given.

J. P. Holder, formerly maintenance superintendent for Dan River Mills' Alabama Division, has been named superintendent of the Clanton, Ala., plant of that division.

W. M. Weaver, director of purchases for Bibb Mfg. Co., Macon, Ga., was recently elected to the Macon city council for a four-year term. . . . Charles C. Hertwig, former president of Bibb and a past president of the Georgia Textile Manufacturers Association was elected to the Tax Appeals Board.

Mrs. Josie Hegwood has retired from Crown Cotton Mills, Dalton, Ga., after 53 years of service to the company. Mrs. Hegwood began work at the mill when she was 12.

R. E. Leach has been named manager of the Marietta, Ohio, plant of the American Cyanamid Co. Leach joined Cyanamid in 1936 as a methods engineer at its Bound Brook, N. J., plant. . . . A. C. Fennimore has been named manager of the company's Willow Island, W. Va., plant. Fennimore has been with American Cyanamid since 1940. He was named assistant manager of the Willow Island plant early this year. . . . J. W. Dykes, who has managed both locations for over ten years, has been named manufacturing consultant to the division. Dykes expects to retire later this year after 41 years of service with the company.

Frederick L. Bissinger has been named to the newly-created position of vice-president and general manager of Industrial Rayon Corp., Cleveland, Ohio. Bissinger previously was group vice-president in charge of the company's marketing and research divisions. In his new capacity, his executive responsibilities will be enlarged to cover all phases of the company's operations. Bissinger joined Industrial Rayon as its patent counsel in 1942. He became corporate secretary in 1945 and was elected vice-president in charge of research in 1948. He was elevated to group vice-president in 1957.

Julian T. Baker has been elected president and chairman of the board of Virginia Mills, Swepsonville, N. C. Baker was named executive vice-president of the organization in February following the retirement of the late Walter M. William.

Gail C. Guinn, a graduate of Clemson College, has joined the Callaway Mills Co. as a trainee. Guinn has been assigned to the Unity Spinning Plant in LaGrange, Ga.

James D. Hammett has resigned as vice-president of Chiquola Mfg. Co., Honea Path, S. C., to become director of waste sales, personnel and public relations for M. Lowenstein & Co. cotton mills. Hammett will work with all the firm's cotton mills in the South.

J. Clyde Simmons, formerly superintendent of the synthetic division of Judson Mills, Greenville, S. C., has been named plant manager of the Kingsley Mills, Thomson, Ga. Simmons is a 1946 graduate of Clemson College with a B.S. degree in textiles.

F. Murray Williamson has been named head of the textile unit in the research and development division of Callaway Mills Co., LaGrange, Ga. Williamson joined the company in 1957 after graduating from Auburn with a degree in textile engineering.

Edward T. Richards has been named manager of the Peerless Woolen Mill of Tifton, Ga. He previously served as plant superintendent for Peerless at the Rossville, Ga., plant. Peerless is a member of Burlington Industries.

Joe D. Moore has been named vice-president in charge of the entire textile manufacturing and finishing operations of Reeves Bros. Inc., New York City. His headquarters will be in Spartanburg, S. C., where Reeves' main mill office is located. Prior to his new assignment, Moore had been general manager of the firm's finishing division and quality control division. He

oined Reeves Bros. in 1955 as special assignment assistant and acted as manager of Bishopville, S. C., finishing division. In 1956 he was named manager of the finished goods sales department in New York and was made a vice-president and director of the company.

Paisley Boney

Paisley Boney, assistant manager of the purchasing department, J. P. Stevens & Co., Greensboro, N. C., has been installed as vice-president, financial officer, and member of the national executive committee of the National Association of Purchasing Agents. The group is made up of 17,000 members of the purchasing profession located in affiliated associations throughout the U. S., Hawaii and parts of Canada.

Gilbert H. Robinson has resigned as president and director of Forstmann Inc., a subsidiary of J. P. Stevens & Co., New York City. Robinson joined Forstmann in 1941 as vice-president and became president in 1950. Prior to his association with Forstmann, he was with Marshall Field & Co.

William S. Manning, who is in charge of the manufacturing operations of Burlington House Fabrics Co., division of Burlington Industries, has been made a vice-president. Manning joined Burlington in December 1956, in an executive manufacturing capacity. Since August 1958, he has been manufacturing manager of Burlington House Fabrics, with headquarters in Burlington, N. C. . . . Robert M. Perry, who is responsible for upholstery fabric sales to the furniture and jobbing trades, has also been made a vice-president. Perry has been with Burlington House since June 1958, initially as an assistant sales manager. He has held his current responsibilities since December 1958, in the position of sales manager.

Max Whatley has been promoted to superintendent of the cotton division of Judson Mills, Greenville, S. C. Whatley, who previously served as assistant superintendent of that division, succeeds W. J. Fagan who has left the company. . . . W. H. Moore, formerly manager of the Kingsley Mill, Thomson, Ga., has been named superintendent of the company's synthetic division.

Carlisle M. Thacker, formerly an engineering consultant with The Du Pont Co., has joined Taylor Fibre Co., Norristown, Pa., as technical director. He will be in charge of all research, product development and quality control activities for the firm, a leading producer of laminated plastics and vulcanized fibre with plants both at Norristown and at LaVerne, Calif.

Five promotions have been announced by Greenwood (S. C.) Mills. . . . A. L. Strawn has been named general superintendent of the Ninety Six, S. C., plant and the Durst plant in Greenwood. . . . R. M. Yonce has been named superintendent of the Ninety Six plant. . . . Z. H. Owings has been named air-conditioning superintendent of all plants. . . . Holloway S. Buzhardt has been promoted from overseer of carding to assistant superintendent at the Ninety Six plant. . . . James Harold Cooper succeeds Buzhardt as overseer of carding at the Mathews plant, Greenwood.

Julian M. Rivers has been named assistant comptroller of J. P. Stevens & Co., New York City. Rivers will make his headquarters in Charlotte. He was formerly assistant divisional comptroller for the woolen and worsted division at Milledgeville, Ga. . . . W. T. Stockton, comptroller, who has maintained offices both in New York and Charlotte, will make his headquarters in the New York office.

Prof. Thomas A. Campbell Jr., a member of the Clemson College School of Textiles faculty since 1937, has been appointed head of the textile management department of the school. Campbell is a 1928 Clemson graduate with the master's degree in industrial education from Pennsylvania State College. He has been teaching at Clemson since 1937.

Burch Ault has been named president of Burlington Industrial Fabrics Co., member of Burlington Industries, Greensboro, N. C. Ault, formerly a sales and merchandising executive with Burlington Shirting Fabrics Co., has been with the Burlington Industries

organization since 1957, originally with the industrial fabrics division of Hess, Goldsmith & Co. He succeeds Charles M. Travis, who after a month's leave of absence at the University of Virginia, will assume other executive responsibilities.

O'Neil Tillotson, formerly with Burlington Industries, has joined the Greensboro (N. C.) Loom Reed Co. Tillotson will have responsibilities in sales and service. He was with Burlington for 12 years and was assistant plant superintendent at the time of his leaving.

Elliott Batson

H. Elliott Batson has been elected to the office of president of the Louis P. Batson Co. He was formerly executive vice-president. Batson succeeds Louis P. Batson Jr., who has been made chairman of the board. He has been with the company since his graduation from Clemson College with a B.S. degree in textile engineering. The Batson Co. serves as manufacturer and sales agent for patented and specialty products to the carding, spinning, weaving and finishing plants who manufacture cotton, synthetic, woolen and worsteds.

W. Leigh Taylor has been appointed assistant to Basil D. Browder, executive vice-president of Dan River Mills, Danville, Va. Taylor succeeds John D. MacLauchlan, who has resigned.

Dr. J. K. Dixon has been named director of research and development for American Cyanamid Co.'s industrial chemicals division. Dr. Dixon joined Cyanamid in 1933 at the company's Bound Brook, N. J. laboratories and since has served in a variety of posts at Cyanamid's Stamford laboratories. In his new position, he will direct research programs for the industrial chemicals division's process chemicals departments.

E. F. Grieb has been named manager of American Cyanamid Co.'s Fortier Plant in New Orleans, La. Grieb succeeds C. F. Bonnet, who has been named associate regional director in Europe for Cyanamid International, the firm's overseas operating division. Grieb has been with Cyanamid since 1935, when he joined the company as a chemist at its Bound Brook, N. J., plant. He was named assistant manager of the Fortier Plant in 1958. . . . T. D. Smith has been named assistant plant manager at Fortier. He was associated with Jones & Laughlin Steel Co. prior to joining Cyanamid in 1946. Early last year he was named manager of operations for the Fortier Plant. . . . J. J. Fitzgerald has been named manager of operations for Fortier. He joined Cyanamid in 1949 and was associated with the company's plastics and resins division until 1953 when he was transferred to the Fortier Plant.

G. Dent Mangum Jr., research co-ordinator in the School of Textiles at North Carolina State College, has resigned in order to accept a position as vice-president and director of research for National Textile Research Inc. of Durham, N. C. With the addition of Mangum to the staff, National Textile Research will expand into the textile processing and physical testing areas.

Chester M. Brown, head of National Aniline Division of Allied Chemical Corp., New York City, has been named president of the parent firm. Brown, currently a corporate vice-president, will succeed Glen B. Miller, who is retiring.

James K. Ames has been appointed to the newly-created position of manager of field sales, Colton Chemical Co., a division of Air Reduction Co., Cleveland, Ohio. Ames, with headquarters in Cleveland, will direct the field sales force in selling Colton products to existing markets and to markets now being developed. He first joined Colton Chemical Co. as a technical service representative in Cleveland and in 1954 went to Chicago to open the district sales office. In 1958, he moved back to Cleveland as central district manager.

H. H. (Bud) Barker has been promoted to assistant superintendent in charge of weaving and warping at Chatham Mfg. Co., Elkin, N. C. For the past year Barker has been acting overseer of the weave room.

Realignment of the Northern sales territories of the Victor Traveler section of the Saco-Lowell replacement parts division was announced recently. A. M. Moffatt, who previously was service man on spinning and a specialist on rings and travelers for the Saco-Lowell research and development center at Biddeford, Me., now covers the territory from Massachusetts through Canada for Victor. . . . Norman Leach, who for ten years worked through all the manufacturing operations of the National Traveler Co., now will cover the territory from Delaware to Massachusetts for Victor.

Jennings Campbell has been named project development chemist for the Abbeville (S. C.) Mills Corp. This is a new job created post under the finishing plant technical supervisor. Campbell was previously laboratory supervisor of dyeing and finishing department.

Walter W. Harper, industrial development administrator for the State of North Carolina has been named director of the South Carolina Development Board, succeeding R. M. Cooper.

Several changes have been made in the Roanoke Rapids (N. C.) Group of the cotton division of J. P. Stevens & Co. . . . E. H. Fuller, superintendent of the Roanoke Plant No. 2, has been appointed manager of the Rosemary Plant to fill the vacancy created by the resignation of R. L. Rogers. . . . C. O. Graham, in charge of preventive maintenance and the testing laboratory, has been appointed superintendent of the Roanoke Plant No. 2 to succeed Fuller. . . . James Q. Brown has been named assistant superintendent of Roanoke Plant No. 2.

Wesley M. Garrett

Wesley M. Garrett has joined the Charlotte office of the Geigy Dyestuffs Division of Geigy Chemical Corp., Ardsley, N. Y. Garrett will serve as a technical representative in the South on textile printing, a field in which he has had extensive experience with Southern textile firms. A native of Easley, S. C., he served with the Southern Bleachery & Print Works in that state, and with the Cranston Print Works in Fletcher, N. C. Garrett also served as superintendent of printing for the United Piece Dye Works and the American Finishing Co.

J. Wilbert Wood, vice-president of J. P. Stevens & Co. and general manager of the Greenville and Rock Hill Groups of the cotton division, will retire September 1. Wood began his textile career with the Gossett Mills and later when they were acquired by Textron, he was appointed vice-president and general manager of that company. In 1947 he was elected president and treasurer of Industrial Cotton Mills in Rock Hill, S. C. When this plant became a part of J. P. Stevens & Co., he was elected vice-president and named general manager of the Industrial and Aragon Plants. He later became general manager of the entire Greenville and Rock Hill Groups of the cotton division. . . . Dan M. Leister has been appointed to succeed Wood as general manager of the Greenville Group. Leister has been serving as general manager of the Roanoke Rapids Group of the cotton division since 1958 and, before that date

was manager of the Appleton and Whitmire Plants. The Greenville Group consists of the Apalache Plant in Greer, S. C., Appleton Plant in Anderson, S. C., Jonesville, S. C., plant and Piedmont (S. C.) Plants No. 1 and No. 2. . . . R. Carter Henry, manager of the Apalache, Jonesville and Piedmont Plants, has been named assistant general manager of the entire Greenville Group. . . . W. Kirk Stringfellow has been appointed to succeed Wood as general manager of the Rock Hill Group. Stringfellow has served in the capacity of assistant general manager of this group since 1954 and was divisional costs controller prior to that time. The Rock Hill Group consists of the Industrial plant in Rock Hill, S. C., Ragan Plant in Gastonia, N. C., three Republic plants at Great Falls, S. C., and the Whitmire, S. C., plant. . . . Henry W. Suber, manager of this group, will assume the responsibilities of assistant general manager. . . . Frank T. Roberts has been named assistant general manager of the Roanoke Rapids Group of the cotton division. Roberts has served the company for many years in manufacturing and staff capacities. D. Cameron Turrentine Jr. is vice-president and general manager of this group, which consists of the Patterson Plant, Roanoke Plants No. 1 and No. 2, and the Rosemary Plant, all located in Roanoke Rapids, N. C.

Dan Hurst has been named general manager of manufacturing of Candlewick Yarn Mills, Dalton, Ga. In his new capacity Hurst will report to Candlewick's vice-president W. Wilson Rogers. Candlewick operates mills in Dalton and Royston, Ga., manufacturing cotton and synthetic yarns for the tufted industry. Hurst has been associated with the American Thread Co. for approximately 14 years as manager of its Dalton, Tallapoosa, and Newnan, Ga., operations.

Charles A. Godsell has been appointed to the newly created post of Eastern regional manager for Shawinigan Resins Corp., Springfield, Mass. In this new capacity, Godsell, who has been New England district manager, will be headquartered in the company's New York office and will co-ordinate the activities of the New England, New York and Southern district sales offices.

OBITUARIES

John P. Batson, 56, president of Batson Mfg. Co., and John P. Batson Co., both of Greenville, S. C., died July 19 in a Greeenville hospital. Mr. Batson, together with his brother, the late Louis P. Batson, organized the Batson Mfg. Co. in 1933. The companies were organized as manufacturers agents for textile supplies. Later they began the manufacture of wooden parts for textile machinery. Survivors include his widow and a son.

Percy W. Ellis, 70, former textile executive, died in Greenville, S. C., recently. Ellis had been employed as a realtor for the past five years. He had previously been associated with the Enterprise Cotton Mills, Augusta, Ga., and Atkinson, Haserick Co., Framington, Mass.

James L. Morrison, 85, president of Morrison Machine Co., Paterson, N. J., died July 20 after a two-week illness. A native of Scotland, Mr. Morrison came to this country in 1875. He founded his own company in 1904 for the production of textile finishing equipment. He is survived by a son, John C. Morrison, company vice-president, and a daughter.

Homer Lee Pruitt, 75, retired textile executive, died July 15 at a hospital in Greenville, S. C. At the time of his retirement he was manager of Ottaray and Haynesworth Mills in Anderson, S. C. He had also served with Pelzer (S. C.) Mills, Piedmont (S. C.) Mfg. Co., West Point Mfg. Co. at Lanette, Ala., and Dan River Mills, Danville, Va.

Elijah Kent Swift, 80, chairman of the board of Whitin Machine Works, Whitinsville, Mass., died July 18. Mr. Swift joined the company in 1910 and served in many capacities. He was named Whitin treasurer in 1920. He served as president of the organization from 1933 to 1946 when he was named chairman of the board. At one time he was an officer or director of more than 40 companies. Survivors include his son, E. Kent Swift Jr., first vice-president and director of the company, and three daughters.

MILL NEWS

CONSTRUCTION, NEW EQUIPMENT, FINANCIAL REPORTS, CHARTERS, AWARDS, VILLAGE ACTIVITY, SALES AND PURCHASES

PICKENS, S. C. — Plans for construction of a $250,000 plant to manufacture worsted weaving yarns for Fairhaven Mills here have been made known by Henry M. Haskell, president. Construction of a new 13,000-square-foot building is scheduled for completion in September. Approximately 100 persons are expected to be employed at the new plant.

WHITE, GA.—Kingston Mills has begun construction of a new 80,000-square-foot carpet mill here. J. H. Daughdrill Sr., president, said the plant will be built of concrete and steel and will house manufacturing operations from yarn preparation through finishing.

ALEXANDER CITY, ALA. — Russell Mfg. Co. here has held its traditional Independence Day celebration and barbecue. The event was attended by some 12,000 persons. Service pins were presented to 114 employees of the company. Thomas D. Russell, president, told the gathering, "From where I stand the coming year looks pretty good." He said Russell had a "pretty good" year in 1958 and expected an even better one in 1959. "We have been able to raise some prices modestly," he said, "and we are convinced that we will get our share of the business." Russell reported the company had added 255 employees last year and "payrolls this year were a million dollars more than ever paid out in any single year." Profits were somewhat higher, he said, but were short of the amount needed to take care of expanding operations. During last year, the mills added 75,000 square feet of floor space.

SUMTER, S. C.—Mackie Worsted Mills is scheduled to begin operations here during the early part of August. The company will spin yarns ranging from 16/2 to 60/2 on Bradford and modified Bradford equipment. A total of 4,000 spindles is planned for the operation which is housed in a new brick and steel plant with 26,000 square feet of floor space. Approximately 130 persons will be employed on a three-shift basis.

HONEA PATH, S. C.—M. Lowenstein & Sons, New York City, has purchased controlling interest in Chiquola Mfg. Co. here. It has been reported the new owners purchased some 5,046 shares in the company from the South Carolina National Bank and 3,401 shares held by James D. and L. O. Hammett. Chiquola's total shares are said to number 16,662. In addition Lowenstein reportedly had already purchased or optioned an unknown number of shares from other stockholders. Leon Lowenstein, executive chairman of the board of Lowenstein said, "We plan to have the same policy of full employment at Chiquola as we have at our other mills. With the stepped up activity in the industry, we expect that the company's outside purchases of greige goods will continue in the same quantity as heretofore."

FITZGERALD, GA. — The two-month-old strike against Fitzgerald Mills here has been called off by the Textile Workers Union of America. W. F. Barker, international representative of the T.W.U.A., said that the action was taken in order to permit workers to get work or unemployment compensation while negotiations are in progress.

WELLFORD, S. C. — Jackson Mills here has reported its improvement program is scheduled for completion in late Spring of 1960. The project will create 50 to 75 new jobs and is expected to cost about $1 million. Additions will be made in the slashing and spooling areas. Some 40 cards will be added and changes are planned for drawing and other departments.

GREENVILLE, S. C.—Plant engineers are installing a 550-ton air conditioning unit to serve the No. 1 card room, basement spinning room and the cloth room at Woodside Mills here. The installation is the second stage in an air-conditioning program for the company. On completion in 1960 the program will air-condition the entire plant with the exception of the weave rooms which use evaporative cooling systems.

HICKORY, N. C.—Dixon Weavers Inc., a new firm organized here for the production of pile fabrics for the furniture trade, expects to begin operations during the month of August. Headed by Joseph B. Dixon, former superintendent of Joan Mills here, the firm will begin its production with 12 W-3 Crompton & Knowles looms and two Draper X-D looms. The company will employ 25 workers initially with a weekly production goal of 13,000 yards turned out on a three-shift, six-day basis. The company was incorporated with 200 stockholders and a subscribed capital of $100,000. Other officers include Grady Miller Jr., vice-president of Hickory Dyeing & Winding Co.

LANDIS, N. C.—Linn Mills Co. and Corriher Mills Co. here have announced plans for the organization of a new company to dye and finish textile products. Construction and machinery costs are estimated at $750,000. The new corporation will be a wholly-owned subsidiary known as Corlin Processing Co. Inc. Work will begin shortly on the erection of a building in northwest Landis, containing approximately 20,000 square feet, to be followed by the installation of new package dyeing equipment. Production is expected to begin about January 1, 1960. Plant capacity is designed to dye or bleach about 90,000 pounds of yarn per week, on a three-shift basis. Indicated annual payroll is approximately $150,000. Named as directors of Corlin Processing Co. are: Carl W. Alexander, J. Fred Corriher, O. A. Corriher, Lane C. Drye, H. G. Harper, J. F. Lipe and P. E. Lipe. L. P. Muller & Co., who are the selling agents of the parent corporations, will offer the production of the new plant.

GASTONIA, N. C. — Parkdale Mills here recently ordered new Saco-Lowell drawing, combers and roving machinery, according to an announcement by the Saco-Lowell Textile Machinery Division. The mill ordered 21 Model 57 combers and 56 deliveries of Versa-Matic drawing. Also included in the order were 20—11x5⅛" Saco-Lowell FS-2 roving frames. These are the first of this size FS-2 to be built on an 8" chassis frame.

AUGUSTA, GA.—A fire at Blanche Cotton Mills here July 10 caused damage estimated at $25,000. The fire is reported to have wrecked the opening room containing some 100 bales of cotton and 26 openers.

GREENSBORO, N. C.—J. P. Stevens Co. here has been awarded a $177,570 contract by the Military Clothing & Textile Supply Agency of the Philadelphia Quartermaster Depot for 42-inch tan cotton uniform twill, 6 to 6½ ounces, shrunk and mercerized. The contract calls for 300,000 yards.

PHILADELPHIA, PA.—The Military Clothing & Textile Supply Agency of the Philadelphia Quartermaster Depot on July 20 awarded two contracts for 12-ounce white cotton terry cloth. West Point (Ga.) Mfg. Co. received a contract calling for 200,000 linear yards in the 36-inch width at $158,969.30; M. Lowenstein & Sons, New York City, received a contract for 175,000 linear yards in the 28-inch width at $113,163. On the same date the agency awarded a $92,001.25 contract to Saddler Textiles, New York City, for 225,000 yards of khaki colored cotton oxford cloth, 36-inch width; and another contract to C. M. London Co., New York City, for $81,920 calling for 100,000 yards of khaki colored cotton uniform twill, 40-inch width.

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textile bulletin

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TEXTILE BULLETIN is devoted to the dissemination of information and the exchange of opinion relative to the spinning and weaving phases of the textile industry, as well as the dyeing and finishing of yarns and woven fabrics. Appropriate material, technical and otherwise, is solicited and paid for at regular rates. Opinions expressed by contributors are theirs and not necessarily those of the editors and publishers. ¶ Circulation rates are: one year payable in advance, $1.50; two years payable in advance, $2.00; one year, Canada, $3.00; one year, other countries in Postal Union, $5.00; single copies, 25 cents. ¶ A companion monthly journal, THE KNITTER, is published by Clark Publishing Co. and devoted to the interests of the knitgoods manufacturing industry.

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Justice In July

WE don't know what it would take to put the Textile Workers Union of America out of business but we hope a giant step in that direction was taken July 23 at Henderson, N. C., with the conviction of eight T.W.U.A. officers and members on charges of conspiring to dynamite facilities of the Harriet-Henderson Cotton Mills. One of those convicted and sentenced is the Carolinas director of the union, a post in which you would expect to find a responsible, honorable man. But respectable men don't resort to criminal acts to achieve their ends.

By his action, and by the union's continuing defense of him and his fellow conspirators, the T.W.U.A. has discredited itself as a fit bargaining agent for honest working people. The union attitude is proof positive that the real issue at stake in the strike at Henderson is not a settlement of differences between John D. Cooper and the strikers. The interests of the Henderson strikers are secondary, and the action being taken there is but one battle in an all-out T.W.U.A. campaign to hold on to its shrinking, dues paying empire.

Certainly one of the most interesting aspects of the trial and conviction of the eight men has been the reaction of the union's top echelon. From them has come no single condemnation of the activities of the men sentenced to prison. Instead T.W.U.A. General President William Pollock has referred to the trial as a move by Governor Luther Hodges and the State of North Carolina to crush the strike. Pollock even says the Hodges administration is "openly committed to union-busting in an effort to end the resistance of 1,000 locked-out Harriet and Henderson workers and thereby remove the burden which scabherding of strikebreakers by the state militia has placed upon all of the taxpayers of North Carolina."

The charge, of course, is ridiculous. The very fact that the union leader in charge of the strike has been convicted of conspiring to blow up a portion of the mill is proof enough that Governor Hodges did the wise thing when he dispatched outside forces to Henderson to keep the peace. If these men were brazen and foolish enough to plot a conspiracy against the mill even with the presence of the North Carolina Highway Patrol and the National Guard, how violent would they have become without any such check against them?

The union put up quite a howl when the Governor first dispatched state troopers to the strike scene. It protested the move bitterly. Why? Why should the pickets object to the presence of the state police any more than the non-strikers? The protection afforded by the troopers extended to all parties concerned. The answer, of course, is obvious. The strikers had to protect the jobs they walked out on by seeing to it that non-strikers couldn't get into the plant. By virtue of being organized, the strikers considered they had license to resort to any necessary means to achieve their demands. They were proven wrong.

Aside from the dynamite plot, how else has the union conducted its strike against the mill? A look at the record will show the use of homemade gasoline bombs, dynamite explosions and bullets. There's no way to know how many of the strikers participated in these activities. Very probably all the violence was perpetrated by a militant minority. Some of the shots were fired by angered non-strikers. But the bulk of these maneuvers must be laid to the strikers, the members of the Textile Workers Union of America.

Public sentiment has turned sharply against the T.W.U.A. in North Carolina. The old cry that union members were just poor working people has a hollow sound to it when it comes to you through the echo of exploding dynamite. And while we sympathize with those strikers who are described by the daily press as jobless and heartbroken, we can't forget the fact that they brought their troubles on themselves. The Textile Workers Union of America by law can't march into a plant and force its membership on the workers. The workers have to accept the union. And

this the majority of the workers at Harriet-Henderson did. They listened to promises and bought unemployment. The same people who are today jobless and sick at heart would be going anywhere the union led them if their demands had been met when the strike got under way last Fall.

The same philosophy holds true in the biggest union of them all—the teamsters. Members of the teamsters union aren't blind or deaf or stupid. They're well aware of the calibre of their leadership. They know James Hoffa has been exposed and condemned time and again. But their attitude remains the same. As long as he can wring concessions from employers, they're for him all the way. They don't care how he does it or what he personally gets out of it. They are concerned only with what's in it for them.

The ugliness at Henderson hasn't run its course yet. You can be sure that trouble will continue to brew there for a long, long time to come. If true to its word, the T.W.U.A. plans to sit tight and wait for the national guard to pull out of Henderson. Just what the union plans at that point can only be imagined. But on the basis of past performance it indicates more violence and eventual bloodshed. Beyond that, who knows. We personally would prefer to see the T.W.U.A. out of business.

I went to a new barber to have my thinning hair cut. He wanted to singe it—for an extra consideration. "Each hair is a small tube that sort of bleeds when it is cut," he explained glibly . . . "so it gets weaker every time your hair is cut. But when I singe your hair it seals the ends; your hair keeps its vigor."

"In that case," I asked, "can you explain why the hair on my chin is growing stronger all the time, in spite of the fact that each hair has been cut off every morning for 25 years?"

"Sure, I can explain it," said the barber blandly. "You jest ain't the kind of feller that story was made up to tell to."—Ernest Blevins

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Textiles are finished in so many colors that the exact number has never been determined—probably between 10,000 and 15,000.

No Longer Missing

THE following editorial appeared in the July 1959 issue of *Textile Labor*, a monthly publication of the Textile Workers Union of America:

The Missing Ingredient

SOME SECTIONS of North Carolina's press are taking great pains to defend Governor Hodges' use of the National Guard in the Harriet and Henderson strike.

That practice is coming under increasingly heavy criticism not only from labor sources, but from conservative quarters where there is growing alarm over the $25,000 tab which Tarheel taxpayers have been picking up each week since the militia arrived in Henderson early in May.

Hodges' defenders argue that the governor had no choice but to maintain *law* and *order*. Strangely enough, not one has voiced a demand for *justice* in Henderson. Law and order without justice is tyranny and that applies whether it is administered by Russian troops in Budapest or by guardsmen in Henderson.

A letter to these editors by J. B. Holder, the North Carolina A.F.L.-C.I.O.'s secretary-treasurer, nails the issue squarely. He asks: "Is law and order an end in itself? Is justice of no consequence? Or do the editors feel a demand for justice would be a partisan move because justice is so clearly on the side of the Henderson strikers?"

To which we add, "Justice reached Henderson July 23."

TEXTILE INDUSTRY SCHEDULE

— 1959 —

Aug. 15 (Sa)—Board meeting, **SOUTHERN TEXTILE ASSOCIATION**, City Club, Charlotte, N. C.

Sept. 10-11 (Th-F)—Fall meeting, **THE FIBER SOCIETY**, Textile Research Institute, Princeton, N. J.

Sept. 17-18 (Th-F)—34th Annual Convention, **THE COMBED YARN SPINNERS ASSOCIATION**, The Cloister, Sea Island, Ga.

Sept. 17-18 (Th-F)—Annual outing, **CHATTANOOGA YARN ASSOCIATION**, The Read House, Chattanooga, Tenn.

Sept. 23-24 (W-Th)—Annual meeting, **NORTHERN TEXTILE ASSOCIATION**, Wentworth By-The-Sea, Portsmouth, N. H.

Oct. 1-2 (Th-F)—Fall meeting, **TEXTILE QUALITY CONTROL ASSOCIATION**, The Grove Park Inn, Asheville, N. C.

Oct. 3 (Sa)—Fall meeting, **TEXTILE OPERATING EXECUTIVES OF GEORGIA** (Slashing & Weaving), Hightower Textile Building, Georgia Tech, Atlanta.

Oct. 7 (W)—**CHEMICAL FINISHING CONFERENCE**, sponsored by the National Cotton Council, Mayflower Hotel, Washington, D. C.

Oct. 8-9 (Th-F)—Fall meeting, **SOUTHERN TEXTILE METHODS & STANDARDS ASSOCIATION**, The Clemson House, Clemson, S. C.

Oct. 8-10 (Th-Sa)—Annual national convention, **A.A.T.C.C.**, Sheraton Park and Shoreham Hotels, Washington, D. C.

Oct. 10 (Sa)—Fall general meeting, **ALABAMA TEXTILE OPERATING EXECUTIVES** (Carding and Spinning), Langdon Hall, Alabama Polytechnic Institute, Auburn, Ala.

Oct. 17 (Sa)—Annual meeting, **(GEORGIA) TEXTILE EDUCATION FOUNDATION**, A. French Textile School, Georgia Tech, Atlanta.

Oct. 27-28 (Tu-W)—Technical Advisory Committee meeting and Board of Trustees meeting, **INSTITUTE OF TEXTILE TECHNOLOGY**, Charlottesville, Va.

— 1960 —

Apr. 7-9 (Th-Sa)—Annual meeting, **AMERICAN COTTON MANUFACTURERS INSTITUTE**, Americana Hotel, Bal Harbour, Fla.

May 23-27 (M-F)—**AMERICAN TEXTILE MACHINERY EXHIBITION**, Atlantic City, N. J.

May 31-June 2 (Tu-Th)—11th Annual **COTTON RESEARCH CLINIC** (sponsored by The National Cotton Council), Grove Park Inn, Asheville, N. C.

June 23-25 (Th-Sa)—52nd annual convention, **SOUTHERN TEXTILE ASSOCIATION**, The Grove Park Inn, Asheville, N. C.

Oct. 3-7 (M-F)—The 21st **SOUTHERN TEXTILE EXPOSITION**, Textile Hall, Greenville, S. C.

(M) Monday; (Tu) Tuesday; (W) Wednesday; (Th) Thursday; (F) Friday; (Sa) Saturday

CLASSIFIED ADVERTISING

WANTED—Position as Superintendent or General Overseer. Practical experience in all phases of manufacturing. Regular yarns, sales yarns, twines and ropes. Experience covers Carding, Spinning, Twisting, Winding and Weaving. Employed. Reliable and sober. Address replies to Box "T. Y. U." care Textile Bulletin, P. O. Box 1225, Charlotte 1, N. C.

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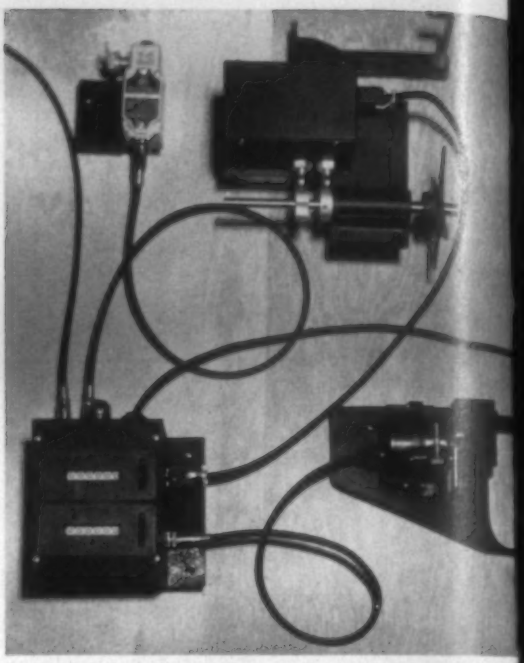
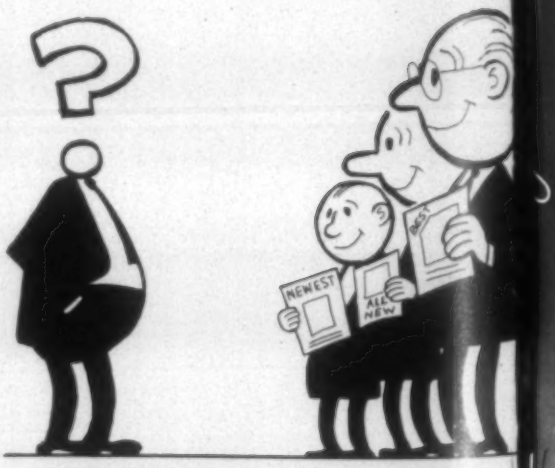
This issue of TEXTILE BULLETIN . . .

. . . features



A New Bobbin Calculator, Page 16



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. . . and includes

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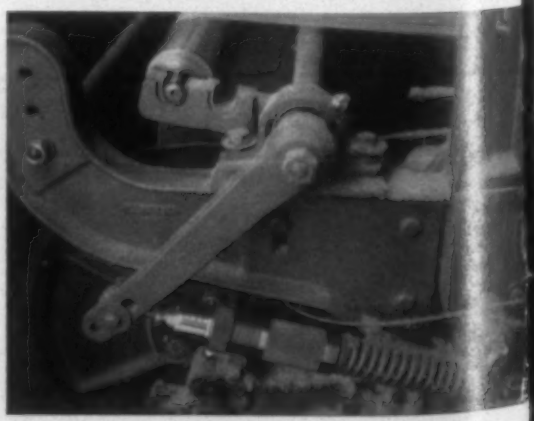

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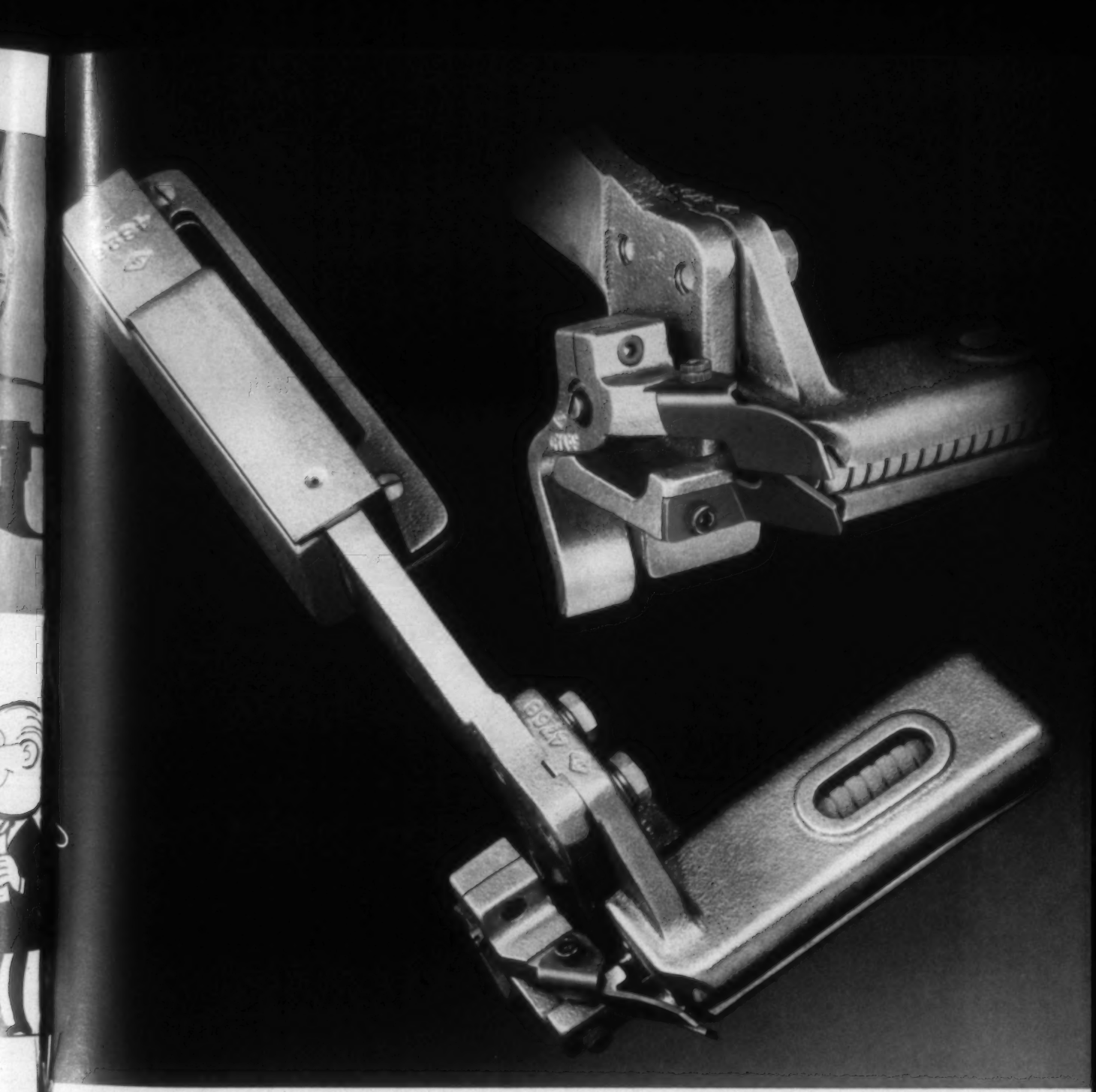

Wider use of Scissors-Type Thread Cutting Temples on Draper Looms. Enthusiastic mill interest has prompted the design and adaptation of temples featuring the scissors-type thread cutter to most loom conditions. These new temples can now be applied to virtually all X, X-2, XD, XP, XP Special, XP-2, XL, XK, E, L and O model looms. Fewer parts cut maintenance costs and elimination of thread cutter lubrication reduces the danger of staining the cloth. For complete information contact your Draper sales representative.

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GRIFFIN SIZE APPLICATOR in position with multi-cylinder dryer. Patents No. 2,698,983; No. 2,698,985; No. 2,763,912; No. 2,794,236 and others pending.

The IMPROVED GRIFFIN SIZE APPLICATOR *INCREASES* WEAVING PRODUCTION

CONTROLLED SIZING, at its finest, permits the sheet of yarn from the creel to pass through the GRIFFIN SIZE APPLICATOR in exactly the same formation as it enters the applicator. Yarn is *carried* by squeeze rollers through the size, rather than being pulled over them—no stretching in the wet state. The only tension on the yarn is in the dry state. Squeeze roll pressures are adjustable at all speeds and for all styles.

You can NOW have the nearest perfect weaving warp through GRIFFIN'S new, exclusive IMMERSION-SQUEEZE ROLL SIZING with . . .

- positive driven immersion roll.
- squeeze roll pressures automatically variable with slasher speed.
- size applied under relaxed tension.
- all ends held parallel while passing through size.

This machine is designed especially for high speed slashing with all types of dryers—also operates efficiently at slower speeds. The aluminum or stainless steel cover is counter-balanced for fingertip control and easy accessibility to interior of size box. Standard sizes have 60" and 78" roll faces. Other sizes are available as special units.

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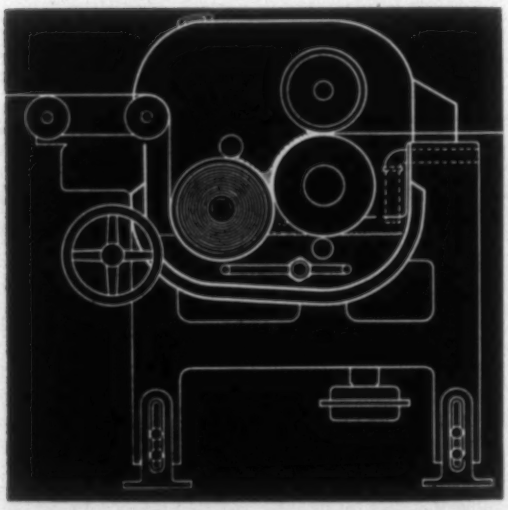
CONTROLLED SIZING AT ITS BEST— with a TRIED and PROVEN APPLICATOR



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